

THIRD SERIES VOL 64 NUMBER 12

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OCTOBER 1957

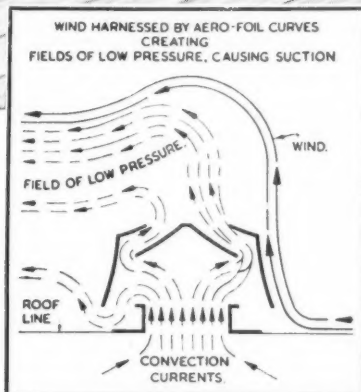
THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

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OCTOBER 1957 THIRD SERIES VOL. 64 NUMBER 12 TWO SHILLINGS AND SIXPENCE

EDITORIAL

Royal Fine Art Commission

The Queen has approved the appointment of Lord Bridges as Chairman of the Royal Fine Art Commission in succession to the Earl of Crawford and Balcarres [*Hon. F.*]. Lord Bridges was, until he retired last year, Permanent Secretary to the Treasury. He is the son of the late Robert Bridges, Poet Laureate, and a cousin of Mr. Michael Waterhouse, Past-President, R.I.B.A.

Hampstead Garden Suburb Golden Jubilee

On 9 October 1907, the Lord Mayor of London of the day, Sir William Treloar, opened the first two houses in Hampstead Way five months after the founder, Dame Henrietta Barnett, had cut the first sod of the Suburb.

For the Jubilee exhibition earlier this year, the Royal Institute lent the portrait of Sir Raymond Unwin and the bust of Sir Edwin Lutyens and some of the original drawings from the Lutyens collection in the Library.

To mark the Jubilee further, an article has been written for the JOURNAL by Mr. W. A. Eden [*F.*] on the place of Hampstead Garden Suburb in English town planning illustrated by photographs mostly taken recently.

The Building Exhibition

The Building Exhibition will be open at Olympia from Wednesday 13 November until Wednesday 27 November, inclusive.

Admission tickets for members will be enclosed in the November JOURNAL which will be published on the sixth of the month.

By gaining admission with these tickets members will ensure a donation of 2s. 6d. to the Architects' Benevolent Society on each ticket. This generous arrangement has been made by Mrs. M. A. Montgomery [*Hon. A.*], who will also provide the usual room over the Addison Road entrance for use as the R.I.B.A. Club, where members may rest and order refreshments. Each admission ticket of the kind mentioned above will also serve as a voucher for two free teas, again through the kindness of Mrs. Montgomery.

The Problems of Building on Moving Ground

Notice has already appeared in the JOURNAL that Mr. D. E. E. Gibson [*F.*] is to give a lecture at the R.I.B.A. at 6 p.m. on 29 October on the 'Problems of Building on Moving Ground'. The lecture is to deal with the new constructional technique developed by the Nottinghamshire County Council and adopted for building in areas liable to subsidence, particularly in respect of new schools.

A limited number of copies of the text of the lecture will be available beforehand to any members who are contemplating taking part in the discussion following the lecture. Application should be made to the Secretary, R.I.B.A.

Street Furniture

The Minister of Transport and Civil Aviation has invited the Council of Industrial Design to add several new categories to its list of approved street furniture designs.

This is in continuation of the Minister's general policy of improving the standard of design in street furniture.

The new categories will include passenger bus shelters, bollards, guard rails, litter and grit bins and other road-side furniture.

The C.O.I.D. now invites manufacturers of these products who wish to be represented on this new list, and architects, designers and authorities who have produced designs which could be made available to manufacturers, to submit details to Mr. Peter Whitworth, Secretary to the Street Furniture Panel, Council of Industrial Design, 28 Haymarket, S.W.1.

A list of items in these new categories will be published and made available to local authorities and other interested organisations.

An example of ill-designed lamp-posts may be seen in the photograph of St. Jude's, Hampstead Garden Suburb, on another page, well justifying the recent public-spirited action of Sir Albert Richardson, P.P.R.A. [*F.*], in displaying a notice board at Ampthill bearing the words 'These incongruous lamp-posts that detract from the beauty of this historic town were erected by the Urban District Council against the Advice of the Royal Fine Art Commission'.

Sir Albert's reference to those who had not the taste to know they had no taste also received wide publicity on the air and may well reinforce the effect of the R.I.B.A. travelling exhibition 'Subtopia'.

Architect-designed Stamp

The stamp illustrated was designed by an architect, Mr. Alan C. Kirkman [A] of the Libyan Architectural Group and is one denomination of an issue of revenue stamps which he designed for the Government of Cyrenaica.

The committee who briefed Mr. Kirkman required a palm tree and a mosque to be shown on the stamp, and the design finally chosen shows the Municipality Square, Benghazi. The motif in the border is the Silphium plant, which was once used by the Greeks and Romans as a source of food and medicine but is now extinct in the country. For the information of members who collect stamps, the others in the series are: 1 mill (green), 2 mills (mauve), 5 mills (blue) and 10 mills (orange). The stamp illustrated is dark grey.



Christmas Holiday Lectures

'Other People's Houses' is the title which Mr. Gontran Goulden, T.D. [A], has chosen for the two lectures he is to give the boys and girls during the Christmas holidays.

The lectures which will be illustrated will be given in the Henry Jarvis Memorial Hall at 3 p.m. on 2 and 3 January 1958. Tickets for either or both lectures can be obtained free of charge on application to the Secretary, R.I.B.A. Envelopes should be marked 'Christmas Holiday Lectures' in the top left-hand corner.

The lectures are intended for boys and girls of 13 years of age and upwards and owing to the limited space available it is particularly requested that application should not be made for more tickets than can be used.

A.B.S. Annual Ball

The A.B.S. Ball this year will be held on Wednesday, 11 December, at Grosvenor House, W.1. Tickets, price 50s. each, can be obtained from the Chairman of the Ball Committee, Mr. C. J. Epril [F], 55 Pall Mall, S.W.1. Cheques covering the cost for the number of tickets required should be sent with the application.

It is the aim of the Centenary Appeal Fund to collect sufficient money not only to build the homes for old people but to maintain them when they are occupied. This fund now stands at nearly £30,000 of which more than half has been raised by the seven Balls which have so far been held.

It is expected that, with the help of members, the Ball this year will be equally successful financially and that it will, as in previous years, provide a pleasant social occasion for members and their friends.

Many applications for tickets have already been received—indeed a number of 'regular attenders' asked for advance reservations at the 1956 Ball. In view of this and the fact that tickets this year will be strictly limited, to avoid overcrowding, applications from those anxious to attend should be made without delay.

Slum Clearance

The Minister of Housing and Local Government, Mr. Henry Brooke, addressing the annual conference of the Association of Municipal Corporations on 18 September said that slum clearance was the biggest housing job that local authorities now have on hand.

The demolition or acquisition of houses last year ran at a rate that corresponded to the rehousing of more than 100,000 people a year, but the important thing was that rehousing of the people should keep pace with the clearance on a growing scale, and that if this was to be achieved, a much larger proportion of local authority building would need to be turned over to slum clearance.

The Minister said that he hoped that authorities would make certain that a bigger and growing share of their new building would be for the benefit of families whose present houses ought to be demolished as quickly as could be.

Mr. Brooke said that grants for the improvement of older houses were being made at the rate of about 35,000 a year and that although the great bulk of housing authorities have been willing to make use of the grants scheme for improvement and conversion, about 128 out of a total of 1,468 had not yet done so, and while some authorities were making grants for the improvement of owner-occupied houses but would not do so for houses to let, the policy of other authorities was the reverse.

The Minister also asked councils to consider adding to their efficiency by using an Organisation and Methods service, which was established practice in the Civil Service.

Referring to the Government's proposals for local government reorganisation, Mr. Brooke said that if Greater London, for which a Royal Commission was being set up, were included the conurbations proposed for special review contain one-third of the total population of England and Wales. The special reviews would provide an opportunity to all the local authorities within conurbations to do some fresh basic thinking about the real purposes and needs of modern local government and that he hoped plenty of constructive suggestions would be put forward towards the solution of the problems of conurbations.

The Future of Rushton Hall

The Ministry of Works is to acquire from Northamptonshire County Council a large mansion house, Rushton Hall, with some adjoining land, and repair and convert the building for use as a school for the Royal National Institute for the Blind.

The Ministry will repair the building and carry out the conversions necessary to meet the requirements of the Ministry of Education. The whole of the expenditure will be recovered from the National Land Fund under the provisions of the Historic Buildings and Ancient Monuments Act, 1953.

R.I.B.A. Diary

WEDNESDAY 23 OCTOBER, 6.30 p.m.

Joint Debate for junior architects, quantity surveyors and builders on the motion 'That the combination of professional and contracting services in the same organisation is *not* in the best interests of the building owner'.

TUESDAY 29 OCTOBER, 6 p.m. General Meeting

Problems of Building on Moving Ground by Donald E. E. Gibson, C.B.E., M.A., A.M.T.P.I. [F], County Architect, Nottinghamshire.

Bousfield County Primary School

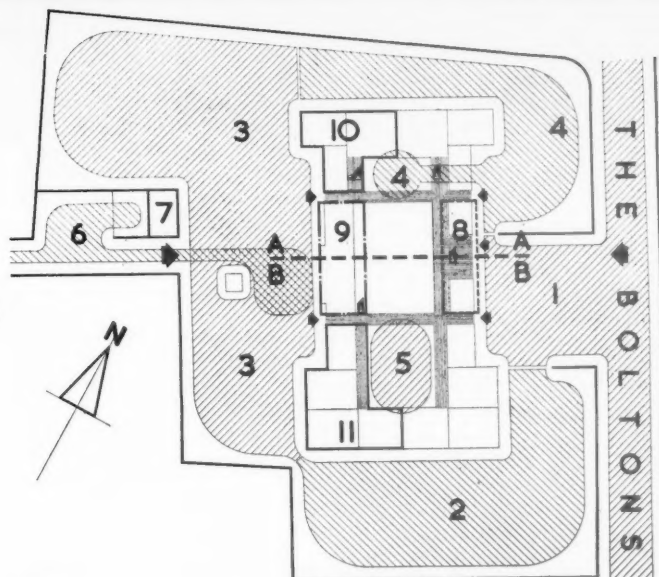
South Bolton Gardens,
London, S.W.7

Architects: Messrs. Chamberlin
Powell and Bon

THIS SCHOOL was awarded the London
Architecture Bronze Medal for the year
ending 31 December 1956.

Requirements and Site:

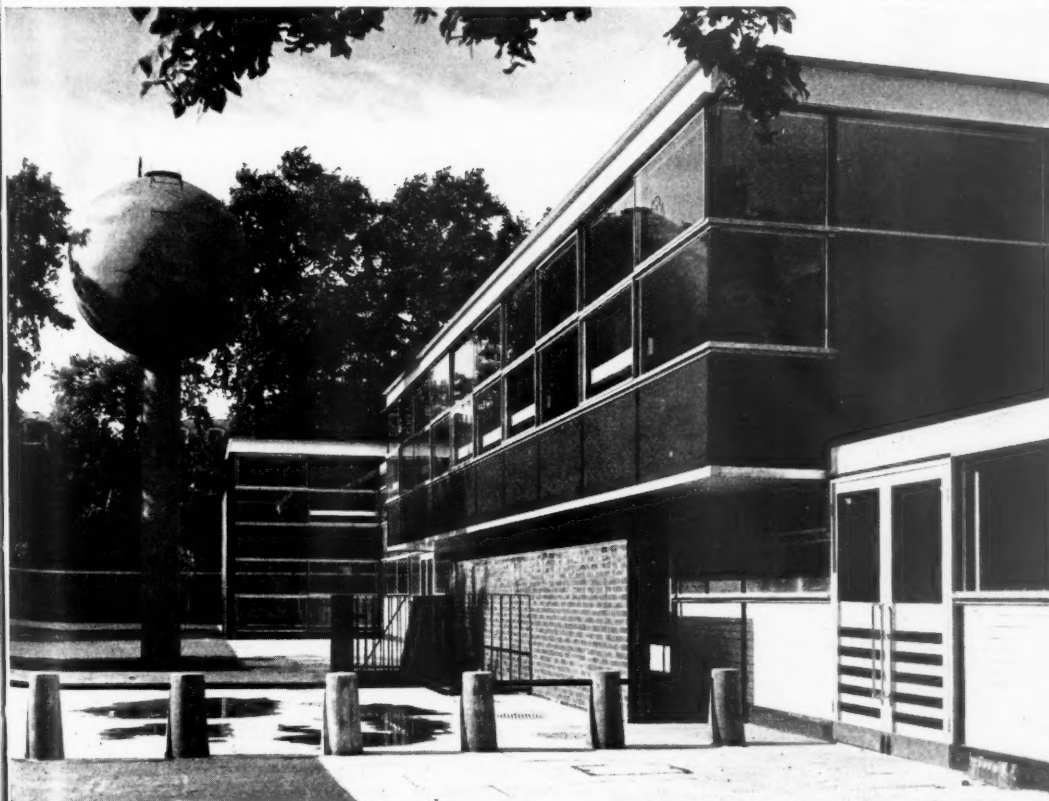
This 560-place school is divided into
junior and infant departments, both with
individual assembly halls and eight and six
classrooms respectively. The site is on the
corner of Old Brompton Road and The
Boltons, a residential district in South
Kensington; in general the site was open
and had pleasant surroundings with many
standing trees.



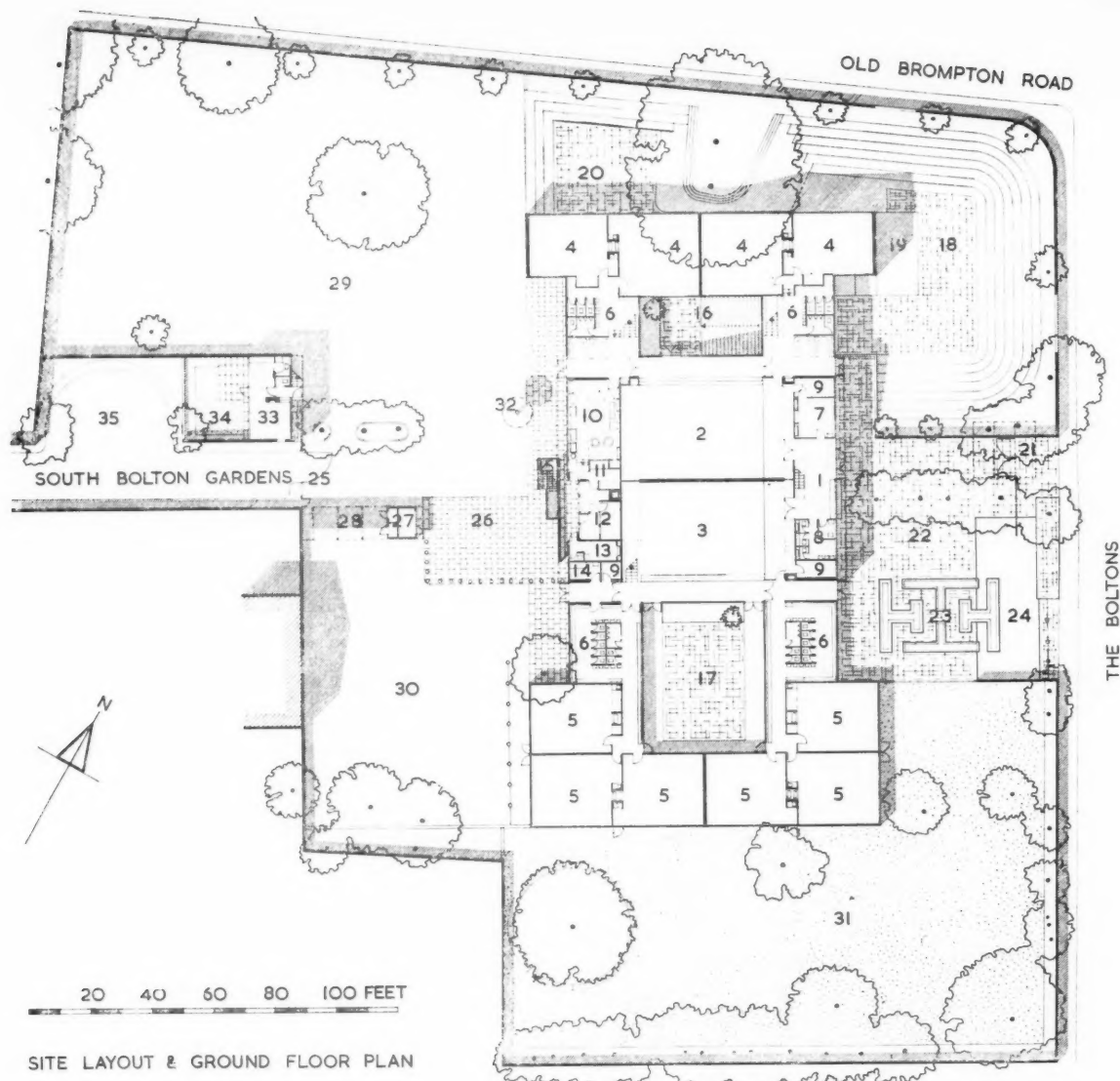
Key to Zoning Diagram:

A. Junior Department north of dotted line; B. Infant Department south of dotted line
1, Entrance forecourt opening off The Boltons; 2, The garden; grass and trees; 3, The paved playgrounds; 4, The 'undulating' zone; the junior internal court linking at a lower level with the amphitheatre and the small sunken court north of the junior classroom block; 5, The internal court round which the infant department is planned; 6, The west approach to the school providing service access and turn-rounds for vehicles; 7, The schoolkeeper's house; 8, The staff rooms for both departments arranged on a gallery above the main entrance overlooking the assembly halls; 9, The dining space for both departments arranged on a gallery above the kitchen overlooking the assembly halls; 10, The grouping of a pair of junior classrooms with cloakrooms and lavatories; 11, The groups of three infant classrooms with cloakrooms and lavatories.

West elevation; spherical r.c. water tank in playground, stairs down to basement boiler-room and screen wall in front of kitchen stores



Tothill Press Limited



1, Entrance lobby; 2, Junior hall; 3, Infant hall; 4, Junior classroom; 5, Infant classroom; 6, Cloakrooms, lavatories and circulation; 7, Medical inspection room; 8, Staff lavatories; 9, Store; 10, Kitchen; 11, Kitchen supervisor; 12, Kitchen stores; 13, Kitchen staffroom; 14, School-keeper's office; 15, Stairs down to boiler-room; 16, Junior enclosed court with stairs down to link with amphitheatre; 17, Enclosed infant courtyard; 18, Amphitheatre; 19, Amphitheatre stage; 20, Sunken court; 21, Main entrance gate; 22, Entrance forecourt; 23, Formal

flower beds; 24, Pool; 25, Service entrance; 26, Paved turn-around above fuel bunkers; 27, Store for refuse bins, etc.; 28, Playground shelter; 29, Junior playground; 30, Infant playground; 31, Garden; 32, Spherical water tank; 33, Schoolkeeper's house; 34, Schoolkeeper's garden; 35, Turn-around; 36, Junior dining; 37, Infant dining; 38, Servery; 39, Junior staffroom; 40, Junior head teacher; 41, Secretary; 42, Infant head teacher; 43, Infant staffroom.

Planning

The site and buildings are planned in several distinct yet inter-related parts representing the 'zones of activity' characteristic of a primary school. Visually The Boltons expands into a formal forecourt, giving entrance to the buildings and the site, separated from the street only by the low entrance gates and a decorative pool. On the north of the site a former basement has been made into a small

sunken court and the wartime static water tank has been converted into an amphitheatre, linked by a low-level way to a small internal court within the junior school. The zones are not rigidly defined, but connect with each other; existing natural features such as changes in level, trees, the old boundary wall, etc., have been exploited; the schoolkeeper's house, the spherical water storage tank and the playground shelter are grouped to interrupt

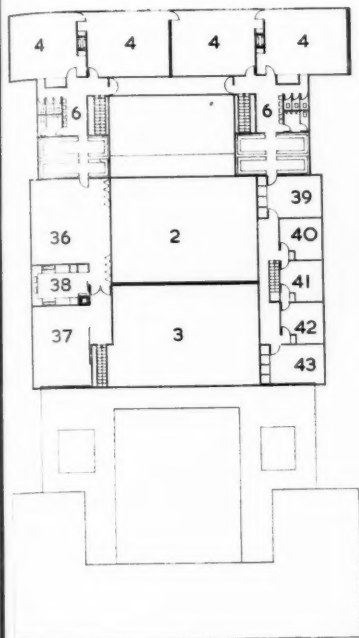
what would otherwise have been the unbroken expanse of paved playground.

The large communal elements of the school are grouped in the middle between junior and infant schools, with staff-rooms and school dining-rooms on galleries overlooking both assembly halls.

The classrooms with the circulation wings containing lavatory and cloakroom accommodation are grouped around internal courts in both departments.

FIRST FLOOR PLAN

HOUSE

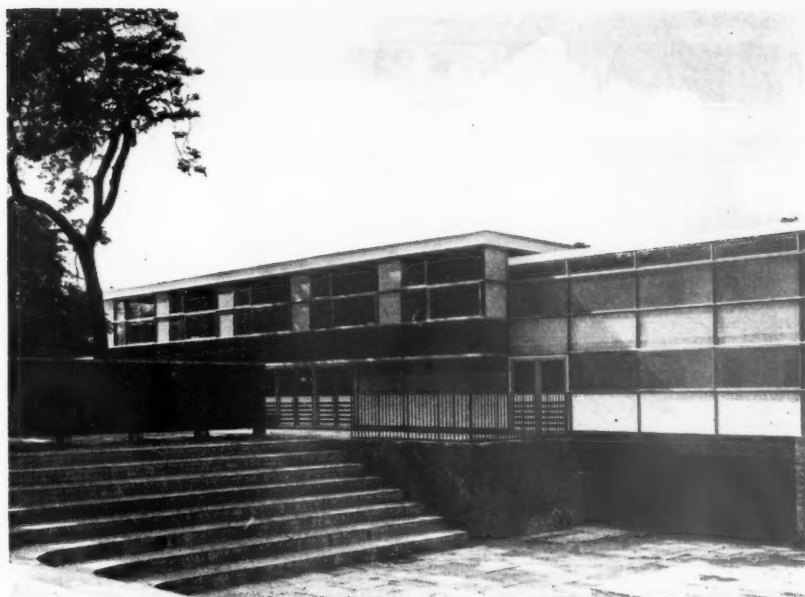


FIRST FLOOR PLAN

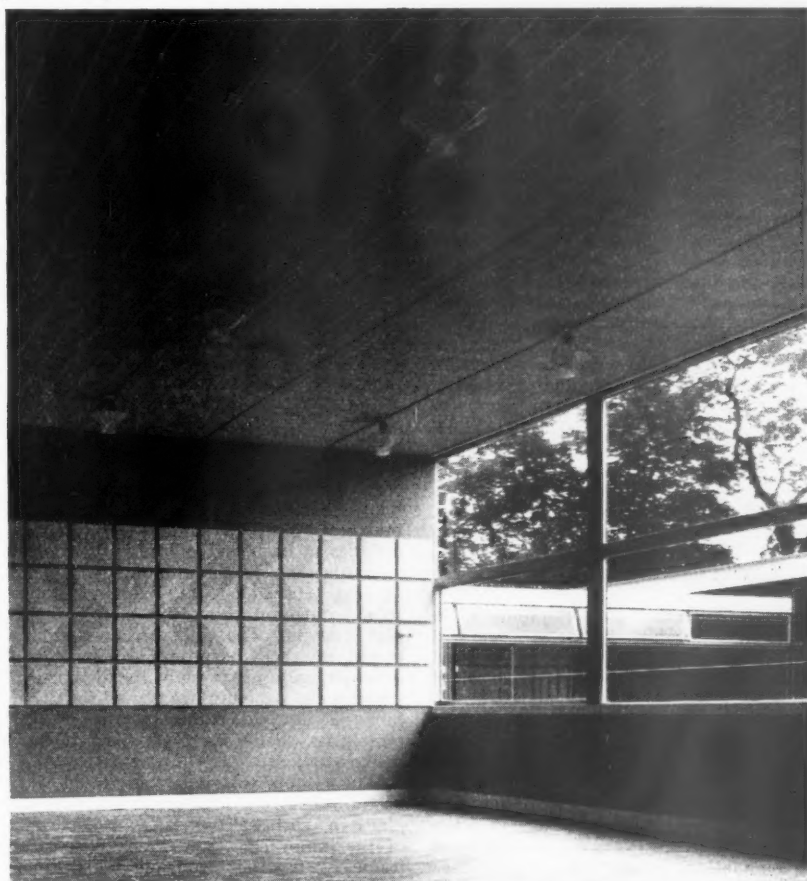
SCHOOL

Design considerations

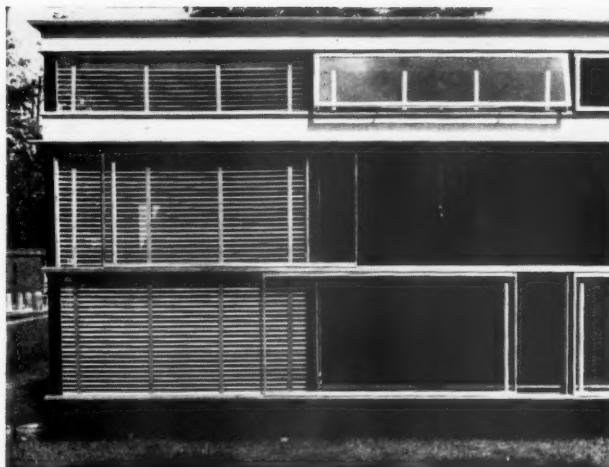
Analysis of the educational requirements of the programme and the opportunities offered by the characteristics of the site led to the 'zones of activity' planning described. The buildings reflect this analysis in so far as the grouping of the different zones—classrooms, assembly halls, circulation areas—is expressed in the plastic form of the building. The inter-relationship of these zones is stressed by transparent glazing where uninterrupted spatial flow is intended and by opaque divisions where visual arrest is required (e.g. between the infants' classrooms and the garden, clear glass is carried from floor to ceiling; again, between the two assembly halls there is a full height partition). Within the building, the zones are further defined by the treatment of the vertical and horizontal planes; walls are sometimes room height, sometimes only high enough to restrict direct vision; the horizontal planes of the floors and suspended ceilings are arranged at varying levels to give definition to the different parts of the building. Windows are



East elevation with amphitheatre in foreground with covered way leading to steps up to inner junior courtyard
Tothill Press Limited



Junior classroom; pinoleum ceiling, acoustic tile pin-up board on wall, p.v.c. sheet floor covering
 ARCHITECTURAL REVIEW



Infant classroom, detail of elevation; steel fascias and mullions, concrete plinth; aluminium transoms and aluminium framed horizontally sliding or top-hung opening lights

ARCHITECTURAL DESIGN



Infant assembly hall; slatted timber ceiling and quarry tile floor to circulation space; East African olive floor to assembly hall; staff gallery above main entrance, lobby in background

ARCHITECTURAL REVIEW

detailed to include venetian blinds as an essential and integral part of their design, so that both the degree of transparency and the quality of daylighting within the interior should be almost infinitely controllable. As it is composed of a series of clearly defined plane surfaces separated by large areas of transparent glass the building has little solidity in its plastic form. Seen from the exterior, however, due to the reflecting quality of glass (supplemented by the blinds when these are in use), the volumetric form is quite apparent. The building is designed on a modular basis; the interior planning is laid out in multiples of a 40-in. module measured—for the most part—to the centre lines of partitions. The structural steel frame reflects this modular planning and the horizontal elevational divisions, as well as the vertical ones, are related to the modular dimension. The proportions of the transparent or opaque panels within the structural framework are variations of the following: $2M \times 2M$, $2M \times M$, $2M \times M/2$, or $M \times M$; elsewhere, detailing is usually based on a 5-in. dimension ($\frac{1}{8}$ th module). Materials and colour are used expressively to underline the design intentions and to reveal the intrinsic qualities of the materials used.

The exposed vertical steel mullions are painted black, while the fascia is painted white, and the transoms are untreated aluminium; in this way the appearance of the already small verticals is played down, while the emphatic fascia defines the limits of the hovering roof planes. A steel channel section is used for the fascia to suggest the hollowness of the roof behind, with its external 'skin' finish above the roof beams and its internal 'skin' below in the form of suspended ceilings. Downstairs the circulation, cloakroom and lavatory area—the key to the whole plan—is paved with blue quarries, the head-room is

limited to 7 ft., and the suspended ceilings are of slatted wood painted green. In the classrooms, the suspended ceilings are finished with pinoleum, the floors have a blue plastic finish and the head-room is 9 ft. In the assembly halls the strongly figured hardwood at the lowest level in the body of the hall, and the projecting galleries at each end of the halls, are all held together by the uninterrupted plane of the suspended red-painted timber ceiling hovering above this central 'core' of the layout. The walls are coloured to emphasise their purpose in defining the different areas. Externally the distinction between the structural frame and the panel filling is stressed either by the use of clear glass, semi-opaque glass, or strongly coloured glass.

Where the frame is supplemented with a load-bearing wall, this occurs in a different plane to the panel fillings, as at each end of the junior classroom block. The steel frame rises from a concrete plinth just above ground level; this point of departure for the steel work is stressed by a slate capping

to the plinth. Wherever possible, the structural and building details have been contrived to echo the formal design intentions. The external cladding is closely integrated with the structural frame. The ceilings are detailed to emphasise their suspended nature; this is illustrated in the halls where the steel roof beams extend under a lay light in the roof, thus revealing the 'skin-like' quality of the ceilings. The structural steel members being left exposed reveal the plastic form of the rolled sections; the 3-in. thick white glazed bricks are built directly in to the channels formed between the web and flanges of the mullions. The difference in quality of the various materials employed in the design has been stressed by their separation.

Bousfield School was designed for the London County Council by Peter H. G. Chamberlin [4], Geoffrey C. H. Powell [4] and Christof Bon. They were assisted by George Agabeg (Assistant in charge), John Connaughton [4], Ross Chisholm, A.R.A.I.A. and Michael Neylan.

The R.I.B.A. Drawings Collection

By A. S. G. Butler [F]

THIS IS NOT INTENDED to be a guide to the drawings in the Library. It is in no sense a catalogue—not even a hand list. But it is an attempt to put down, in a tolerably readable form, the results of an exploration of what we possess. That is something I have long wanted to do; but, of course, there has been no time, with the exigencies of a practice. That, I expect, applies to most members of the profession. A busy man cannot go to the Library and vaguely ask 'May I see the drawings?' There are about 30,000 of them. Yet, having been instrumental in adding to the collection in recent years, I was strongly urged to discover what else was there and to advertise the whole to other architects—if not the general public. In doing so, I was greatly helped and encouraged by members of the Library staff.

At once it was difficult to see how to convey information on this great assemblage without grouping the items in certain categories. But what categories? One could collate, for instance, all the working drawings, or pursue the development of perspective, or even the history of sanitation, as it appears now and then. I felt, however, that the drawings of designs were more important, with the sketches for buildings as well as those of buildings, and landscape too. So I fell back on the only possible method—a loosely chronological one with some national grouping; and I surveyed the collection throughout from the rather arrogant point of view of one who, during the last 60 years, has enjoyed drawing buildings as much as anything in life—especially drawing them creatively, let me add.

It is interesting to discover, in a survey such as this, how well the collection illustrates British architecture during the last four centuries. The bulk of it is, in fact, English. So let me introduce this largest category with the names of John and Huntingdon Smithson, two architect-craftsmen who lived at Bolsover, Derbyshire, in the early 17th century. There is a mass of their drawings in the Library, bound in fat tomes. Many of them are designs for monumental tombs, rich with late Elizabethan *patisserie*; others are plans of ancient buildings which the two men studied. They are primitively drawn and, it seems, were only roughly measured. Yet these plans are very early examples of measured drawings and of some historical interest. One is entitled 'The platforme of the Castell of Shroesbury' and dated 'Auguste the 26th, 1627'.

How surprising it is to find that Inigo Jones had completed the Banqueting House in Whitehall five years before that date! The Smithson drawings underline the metamorphosis which this disciple of Palladio brought about in England with such great distinction. His pupil, Webb, wrote that

'what was truly meant by the Art of Design was scarcely known in this kingdom until he brought it into use and esteem amongst us here'; and 'in designing with his pen he was not to be equalled by whatsoever great masters in his time for boldness, softness, sweetness and sureness of his touches'. The facsimile copy of his sketches in the Library reinforces this opinion. His original drawings in our care¹ do the same. Examples are a large scale detail of a gateway at Beaufort House, Chelsea, made in 1621. The style is full Doric, though the drawing is to some extent freehand, and in ink on rough paper. A design for a chimney-piece at Oatlands is more impressive; it is, in fact, a masterly scribble in ink, with hatched shadows; and this is surpassed by the magnificent design for another chimney-piece, at Greenwich. A caryatid figure and very rich sculpture are dashing drawn here in ink, with the shadows again hatched and, in places, cross-hatched for greater depth. Then there is a wonderful upward perspective of the Cabinet Room ceiling at Wilton House which might almost be a sketch by J. B. Tiepolo. If we add to these his details of capitals at Greenwich, showing imaginative variations on the orthodox Corinthian, we can understand why Jones was the founder of a high tradition in English architecture which ended only at the death of Lutyens. We are bound to admit, too, that he was a very fine draughtsman.

Six of his architectural descendants, whose works are represented in the Library, may be taken together.² They are Wren (1632), Hawksmoor (1661), Vanbrugh (1664), Gibbs (1682), Kent (1684) and Flitcroft (1697).

To begin with, we have over 30 original drawings by Sir Christopher Wren. The best of these, in my view, is his design for the twin domes at Greenwich Hospital, dated 1702. It is complete with plans at two levels, a half-section and a half-elevation. Apart from the excellence of the design, the apparent ease—the sweetness of touch—with which the drawing of the curved ribs is done, with slight shadows and a little tinting on the lead, puts this work on the very highest level of architectural creative draughtsmanship. It is clearly one of our great possessions and, I think, sets a standard for all time.

None of the other Wren drawings quite equals this. In fact, the plans of churches are rather dull; but the sketched detail of what was probably intended to be the top of St. Augustine's, Watling Street, has the same *slithery* quality as the Greenwich dome drawing. A long section of St. Magnus the Martyr is important; but an elevation of the entrance to St. Peter's,

Cornhill, is quite badly drawn; and it suggests that Wren was perhaps very rushed at the time.

As we know, his authority at Greenwich was curtailed, in favour of Vanbrugh and Hawksmoor, in the early years of the 18th century. We have in the Library, a block plan of the hospital, attributed either to Wren or Vanbrugh. It is only 18 in. x 12 in., but a charming thing in brown ink and grey filling; and it is decorated with three cartouches and a pale sketch for a monument in each corner. With this, there is Hawksmoor's own plan of the whole group of buildings. Done in a thin ink line, it shows his proposed church and lateral additions to the Queen's House. We have, too, a perspective drawing by him of Bow Church, in mixed pencil and ink.

James Gibbs has provided us with six sheets of a design for a Royal Palace. The microscopically thin line, in this case, actually varies in tone; and he has kept his washes very pale. But the sections are remarkable—especially one across the building and looking beyond an arched opening into the chancel of a chapel. The handling of various tones of neutral tint to suggest distance, is most adroit. This work is more attractive than Kent's 1739 book of designs for a combination of the Houses of Parliament with the Courts of Justice. The dullness of those drawings is countered by his sketch design for the tomb of Isaac Newton in Westminster Abbey. I enjoyed, also, discovering Henry Flitcroft's west elevation of St. Giles-in-the-Fields. This valuable 18th-century drawing is made in the usual pale thin ink line, but it is warmed with a yellow ochre wash, brown shadows and a clouded blue sky.

One should, I think, interject Sir James Thornhill (1675) at this point, in contrast to the six architects just mentioned. He was not a good one, as his dreary competition design for the façade of St. Martin-in-the-Fields indicates. Yet we have a sketch by him for the decoration of a staircase in the Tiepolesque manner he cultivated—a drawing which was pronounced by Professor Donaldson in 1876 to be a very good example of Thornhill's work.

Now James Stuart (1713), who collaborated with Revett in that influential work on the antiquities of Greece, might be catalogued safely as not an architect at all. One can describe him as a draughtsman of topographical views, or even as an illustrator. We possess 24 of his original water-colours, showing Greek monuments and remains. It may be a rude opinion, but they do not convey to me the great qualities of Greek architecture. For they are quite clumsily drawn—especially one of the Erechtheion; they are heavily painted in unsuitably rich colours; and they are crowded with figures, apparently in fancy

¹ They form part of the Burlington-Devonshire collection, on permanent loan.

² I give their dates of birth in parentheses.

dress.¹ They cannot be compared, for instance, with the works of Thomas Sandby (1721), who taught architecture at the Royal Academy schools. His design for 'A Bridge of Magnificence' is one of our cherished possessions.

Reverting now to the real architects, I found in our collection what are presumably the working drawings of Somerset House by Sir William Chambers (1723). The set is carried out in an ink line, with some shadows, and fully dimensioned throughout. Admirable; but his detail of a pavilion is more so and much superior to James Wyatt's (1746) drawings of Ashridge for the Earl of Bridgewater. These are dull—especially that of the great staircase, signed and dated 1809. Some full size details, however, are interesting. They are drawn in ink on rough paper, much the same as some by Robert Adam I found at Kedleston. Moreover the value of these Ashridge drawings is enhanced both by some others of Sir Jeffrey Wyatville (1766), who took over the job on Wyatt's death, and by perspectives done for the architect by John Buckler in 1813. These are severe views of the inside and outside of the house; but doubtless useful to show the client what the building would be like. Then, most interesting are Sir Jeffrey's ink and sepia designs for the stables and gateway to the Pony Court at Windsor Castle; and—even more so—his preliminary sketches of a Schloss for the Duke of Saxe-Meiningen, in alternative Classic and Gothic modes. One of these was done at Kew in 1836, with Queen Adelaide watching him draw.

James Paine (1716) designed Richmond Bridge in 1774 (widened in 1938). We have his plan and elevation of this, exquisitely drawn in the usual line and wash. Every baluster is exactly shown; but the rather tight effect is subdued by the rendering of Richmond Hill, delightfully floated in behind the elevation.

This period—the early decades of the 18th century—saw a flowering of the great classical houses, nicely reflected in our collection. There are, for instance, complete plans for a nobleman's house by John Yenn (1750). It is about as large as Holkham Hall, with four similar wings. Its interest is less architectural than social; but two large elevations by John Vardy, who died in 1765, are of a higher class. They are designs for a School of Arts and Sciences in which the drawing of the sculptured detail is particularly apt.

The works of Joseph Bonomi (1739) have some practical interest. He designed that great house, Roseneath, for the Duke of Argyll; and, among his slightly brutal working details, there is one which shows very carefully how to build a stone cone in the main sewer to prevent rats coming up it to the house. And sanitary history is also recorded in the drawings by Robert Adam (1728) of Mr. Whitmore's residence in Old Jewry. The drains are shown here on the ground floor plan, as well as four pretty detail elevations of the counting house, in ink, tinted.

¹ 'These absurd drawings', said Sir Reginald Bloomfield.

An appreciation of such a large number of drawings as there are in the R.I.B.A. Library can become even more difficult and confused when there are several architects in one family. The Hardwicks, for instance. Thomas Hardwick (1752) emerges first as a pupil of Chambers. Those drawings we have, labelled 'from Chambers's Office', are most probably all the work of Thomas Hardwick. The set is a valuable one. His measured drawing of the York Stairs, presumably made for Chambers, provides an early instance of accurate, very clear and neatly dimensioned work in this class. He was expert at measuring buildings and drawing them out from his notes. When he visited Rome, at the age of 25, he produced a measured drawing of the Pantheon—one of the finest we possess. It is quite complete; with plans at all levels, every elevation, and really beautiful sections illustrating the entire internal treatment. He must have been ambitious and was clearly a strong worker. For, as well as the Pantheon, he measured and drew out the Castle at Caprarola; quite a lot of Pompeian decoration; parts of St. Peter's in plan only, with one of the curved Colonnades included; and a detailed elevation of the great Candelabrum. This very elaborate thing is superbly drawn in ink—chiefly freehand—and tinted a golden ochre against a grey-blue sky. The shadows, all in the right place, are in a darker gold. As well, he has left us a design for a country house, not unlike Kedleston—at least from the north, but more elegant because the two wing blocks are connected to the larger centre with an open double colonnade. Perhaps this was inspired by the quadruple one he measured in Rome. It is certainly less practical than Robert Adam's open cloister to each wing at Kedleston, with a covered and furnished gallery above it. Yet Hardwick's scheme makes an enchanting drawing. He so clearly enjoyed getting his back row of columns increasingly out of line with those in front, putting the reiterated triglyphs in the right curved perspective, enlivening it with warm shadows and indicating romantic glades beyond the columns.

Yet some of the drawings of his son, Philip Hardwick (1792) are almost as attractive. We have his designs for Lincoln's Inn Hall and Library. This work was seen through by his son, Philip Charles Hardwick (1822); so it is difficult to ascribe the elevations and perspectives we have to the son or the grandson of Thomas. As they show *brick* as a material giving tone and colour, the drawings were more probably made by the younger man. In any case, the skill is hereditary.

Edward Stevens was almost an exact contemporary with the eldest Hardwick. He was a great draughtsman of detailed designs. Some are exquisitely done; for instance his 'ceiling for the front room upstairs of Mr. Collins's large house', with a human note on it, saying 'Mr. Stevens begs this drawing may not be lost, as he has no copy by him'. And almost as attractive are the designs made by William Porden (1755) for Downing College, in the

usual thin ink and wash. They present quite agreeable architecture very nicely.

I suppose, however, that the big man of the later 18th century whose drawings we own was Sir John Soane (1753). A couple of his distinguished works are the pen and wash study for Lord Arundell's chapel at Wardour, 1788; and his water-colour perspective of the 3 per cent Consols Office, signed and dated 1799. I was, however, surprised and delighted to find Soane's 'Observations on the Report of the Select Committee appointed to inspect and revise the proposed new Law Courts building at Westminster'. These are a large bundle of sketches, all done freehand with a spluttering pen, blotted and scribbled, but extremely effective. Some look quite *angrily* drawn; the 'view of the Lord Chief Baron's retiring-room', for instance. In contrast to these, his working-drawings for Trinity Church, Marylebone, are decidedly dull for that inventive and clever man.

Sir Robert Smirke, born 28 years later than Soane, brings us the fullest Greek Revival in his dignified parallel perspective of the British Museum entrance front; and, as well, a sketch design for a very awe-full monument to the Napoleonic War in Hyde Park. So it is a happy coincidence that we have, with these, a collection of his small sketches of 'picturesque bits'. One can only describe these unlikely souvenirs in that way. Gothic hinges, old fireplaces and tops of Tudor chimneys seem unrelated to his great building in Bloomsbury. But he did other useful things such as completing the Mint from the original designs of James Johnson, who died in 1807. We have the whole set of these drawings, shadowed and tinted. The sections are of particular interest; and they should be compared with the Contract Drawings by George Basevi (1794) for that charming arc, Pelham Crescent, off the Fulham Road. Those were made as late as 1829, but they belong to the Georgian era. All are drawn in pure line, except for some pink on the sections. They are as notable for their neatness as Benjamin Dean Wyatt's very fine, nearly contemporary, designs for Drury Lane Theatre.

More than 30 years ago Mr. Sigismund Goetze presented to the Library a large collection of drawings and sketches by Alfred Stevens. I recall bringing them to Conduit Street, with the late Sydney Kitson, and the impression they made on me. It is a much deeper one now; and the R.I.B.A. is fortunate to possess these memorials of a great English artist. Here was a man who clearly loved making drawings of buildings and architectural details; and, though he lived from 1818 to 1864, he was hardly affected by the Gothic Revival. He found his whole inspiration in Italy. Indeed, it is not too much to say that Stevens had a passion for drawing Italian Renaissance palace elevations, often with sections, key plans and figured dimensions. He achieved extraordinary skill in snapping off, in a few lines, a Corinthian capital in perspective. He measured and drew whole entablatures with extreme care; and we have a

large volume of his sketches, from which we may justly conclude he obtained some of his great knowledge of—and feeling for—architectural form. One of these (about 12 in. × 9 in.) is an oblique view of the upper two-thirds of the Pazzi Chapel at Florence. Put in lightly in pencil, it is finished in ink, chiefly freehand, but with some lines ruled where necessary. The capitals are simply flicked in, yet with absolute accuracy and quite convincingly. There are a few shadows and a touch of colour on the roof enrichment only. Nothing else whatever was wanted. This is the perfect architectural sketch: it is one of the best I have ever seen.

There are as well, in the Library, some of Stevens's studies for final designs—masterly scribbles in brown ink for a Royal Waiting-room at Paddington and for the Wellington Monument in St. Paul's. Others are for hypothetical buildings, in perspective and elevation, including some towers and spires, somewhat in the Wren manner and most alluringly drawn. There are designs for metal objects. Two of these are for street lighting standards, very richly modelled and the antithesis of some recently erected in Brompton Road. There is even an ink tracing of a Michelangelo design in the Uffizi Palace. For Stevens, like him, could feel in architectural and human form simultaneously. That is why, in my view, the Wellington Monument, without the superimposed rider, was a greater work of art through its magic fusion of those two elements in *one* form. And finally, some of his water-colours have a very delicate charm. I recommend an interior of a romanesque church and another, pale and ethereal, of the Doge's Palace.

That brings us to the Early Victorians. It is, I am sure, a mistake to disregard or even underestimate them. On the whole their contribution to architectural drawing was notable, even if their buildings were sometimes odd. Moreover, we can follow the Battle of the Styles—that real fight between Gothic and Classic—as it is shown up in the drawings of the period.

All the best men joined one side or the other; though a few neutrals worked unsuccessfully in both. Thomas Rickman (1776–1841),¹ for instance. He carried out a number of churches in imitation Gothic, yet with almost quite Georgian plans. We have his design for Oulton church, made in 1827. It is extremely dull and the elevations are grim. However, his competition design for a University Library at Cambridge is more agreeable, especially his rendering, in a perspective, of large Ionic columns disappearing behind each other. Possibly he preferred the classical style, but designed his churches in Gothic from sentimental or even religious motives. It is difficult to pin him down to either. Some of his drawings of Greek ornament have a suspiciously Gothic flow in their lines; and bits of Gothic, which he measured and drew, look as if they were all ready for neat manufacture in stucco. Nevertheless,

he invented the nomenclature of our mediaeval styles—Early English, Decorated, Perpendicular, etc. That has been useful—like Mr. Gwilt's *Encyclopaedia* of the same period and a more valuable work than his sexless Gothic designs for churches.

Edward Blore (1787–1879) was one of the pillars of the Gothic Revival. The Library owns a number of his drawings. Most of them are perspective views of country houses and churches, curiously resembling each other in their attempted mediaeval idiom and the pink wash with which they are finished. But Blore's two perspectives of his design for Buckingham Palace, signed and dated 1840, are quite admirable. They show a restraint which is wholly missing in his view of the proposed Main Vestibule. The heavy colouring here is really distressing and puts him well below John Dobson (1787–1865), almost an exact contemporary. That architect had a very large practice in Northumberland and Durham. He is said to have built or altered 90 country houses, of which we have some perspectives. All are good; but the best, I think, is that of his proposed Newcastle Station for the Carlisle–Newcastle line. In fact, a few of his drawings have a quality which puts him almost level with the best water colourists of the time. For, as I have suggested already, these men seem to have achieved a high standard in draughtsmanship, if not in the art of design.

Joseph Woods (1776–1864) is another. He had very bad luck. The floor of a sale room he built in Mincing Lane collapsed, and it seems that he gave up his practice as a result. Presumably he had independent means; because he travelled extensively in Europe and produced some very successful drawings of buildings and scenery. The view of the exterior of the *chevet* at Reims, with its intersecting buttresses in curving perspective, and that of the whole cathedral interior, looking east, are very fine. They are as competent as any similar work done in the following century. This is a case of an architect who became a professional artist, and able to throw off the restricting influence of mechanical drawing. Like J. S. Cotman, he perceived the dramatic element in ruins and wrung it into his compositions. His picture of the Theatre at Taormina, for instance, combines cleverly the pale pink shades of the masonry with the darker sky and hills beyond; his view inside the Treasury of Atrius is almost sinister; but the most impressive to me is a large interior of St. Paul's outside the walls at Rome. Here again he stressed a contrast between the general red-brown colour of one aisle and, looking across the nave, the pale silver of the opposite colonnade.

There is not space here to enlarge upon the drawings we have of many other representatives of the Gothic Revival; but it is essential to bring in Anthony Salvin (1799–1881). As he lived a few years later than those just referred to, he enters the ranks of the exponents of that more solid revival of building in the Gothic style, culminating, I suppose, in Liverpool

Cathedral. He came of an ancient Durham family and achieved considerable success both in large domestic works and the restoration or adaptation of mediaeval fortresses. His designs for houses show an inclination to Tudor rather than full Gothic—possibly for practical reasons; but at Alnwick Castle where he carried through a massive reconstruction for the Duke of Northumberland, he did nothing radical or in bad taste. Only the main staircase was carried out in an Italianate style to which Salvin seems to have been somewhat allergic. We possess many of his drawings of the castle. The most interesting is an aerial perspective of the whole building. Done in an ink line, each window and every battlement is meticulously drawn. It gains value by the omission of shadows and all colour except some neutral tint on the roofs; and I prefer it to his more orthodox perspective view of Scotney Castle (Mr. Christopher Hussey's house in Kent) which might have been by Edward Blore. But his drawings of that great new Plantagenet castle at Peckforton are more exciting—especially a sketch elevation, scribbled in brown ink, with warm ochre washes verging into the golden brown-pink of his shadows. His large perspective of this house is dramatic, too, in the manner of Joseph Woods, for it is made to appear as a lightly tinted stone mass against bleak indigo hills. Lastly, the Library owns some drawings of Salvin's work at the Tower of London. We have his detailed drawings for the conversion of the round Wakefield Tower into the Jewel Room; and of some historical interest is his plan of the entire building, made in 1850, which shows all the existing drains and some new ones. One gets a strong impression that Salvin was a very practical man but, also, a highly qualified artist in the presentation of his buildings.

Then there are, of course, the Pugins, father and son; Augustus Charles (1762–1852) and Augustus Welby Northmore (1812–1852). Both of them appear to have spent their lives *drawing*; and, happily, the Library is very rich in their works. Seeing them in bulk is almost a revelation. We are told that Charles Augustus assisted Nash when that architect had to do Gothic structures;¹ and certainly his knowledge of mediaeval work was immense. It could not have been less than that, judging by the sketches and studies he has left. We possess about 50 of his drawings of Westminster Abbey. They are chiefly internal views and very remarkable for his rendering of Gothic loftiness and the more lumbering monuments with equal devotion and the grandest effect. Some are in acute perspective; a few are coloured with a palette limited to yellow ochre, light red and indigo; and one is a quick sketch, looking across the transepts—a brilliant impression based on great knowledge. He was very rightly made a member of the Old Water Colour Society.

Those Abbey drawings were published

¹ He may have done so when Nash added two enormous buttresses to the west end of St. David's Cathedral, later removed, a little rashly, by Sir Gilbert Scott.

¹ At this stage, it will be more informative to give each man both of his dates.

in 1812. His *Specimens of Gothic Architecture* appeared in 1821; and we have three large volumes with his original pencil studies for that work, pasted in. Further, the collection of his measured drawings—many done in collaboration with his friends B. Ferrey and F. T. Dollman—are astonishing for their accuracy and neatness. His interest in line is further exemplified by his sketches in France and in Ireland. Notable instances of his talent for landscape are one of the Giant's Causeway and another showing the interior of a cave.

The box containing about 100 drawings by his son, Augustus Welby, suggest that they were made in the pursuit of architectural knowledge rather than with the object of producing charming pictures. Every kind of Gothic detail is portrayed; and some of the larger drawings are very courageous undertakings—such as that oblique view of the great portal at Beauvais, with the lace-like cusps of the deepening arch. Some of the vertical lines appear to be ruled, but with the same swift *légèreté* as those done freehand; and the figures he introduces are noteworthy too for the easy mastery of their drawing.

The younger Pugin was a friend and assistant of Sir Charles Barry (1795–1860). There has been controversy over which of them designed the Houses of Parliament. My feelings, after studying the drawings of both in the Library, is that Barry may have been the official architect, but that Pugin designed all the detail and did many of the drawings for him. We possess the great set of the accepted design—15 of them labelled 'New Palace at Westminster'. The minute delineation here is breath-taking, especially in the sections; and it is difficult to imagine that those interiors at least were from any other hand than Pugin's. The studies for the Victoria and Clock Towers are very valuable. There is, among them, an enchanting sketch for the Gothic texture of the latter. It is in pencil and wash, very lightly done; and it exhibits transparently a love of drawing and the pursuit of architecture.

It is, indeed, very difficult to believe that Barry did this sketch and that he designed, as well, the library of the Travellers' Club—one of the handsomest rooms in London and a Georgian classical triumph. We have no drawings of that apartment; but Barry's designs for the Reform Club which we possess show him at his most efficient. They illustrate, too, an early use of iron construction and some 1850 cooking appliances.

The classical side in the Battle of the Styles had an early supporter in William Inwood (1771–1843), whose competition design for St. Pancras Church, dated 1819, is in our collection. But Harvey Lonsdale Elmes appears to have played for both sides with great success. Born in 1814, he lived only 33 years. Yet, though always delicate, he achieved in that time more than most architects in an average lifetime. Luckily the Library owns many of his drawings, nearly all of them very distinguished. Clearly this was another man who loved the work; and his genius was such

that he rose above fashion and designed buildings in the style he thought suitable. At least, that is the impression one gets on examining his drawings. For, to begin with, he designed the Collegiate Institution at Liverpool in full—but late-Gothic. Moreover, his handling of the style is much less imitative than that of his contemporaries. He saw it was not a matter only of cusps and crockets. He very nearly grasped its whole character and substance, as his inch scale and full size details show. Yet—and this is so remarkable—he won the competition for St. George's Hall at the time he was doing the Institution; and he submitted, as well, a design for the Liverpool Assize Courts, intended to adjoin the hall, but never carried out. We own his perspective of this second building—a beautiful pencil drawing, with sepia washes. Not only does his rendering of Greek Doric catch all the refinement of that Order, but the sculpture and human figures are put in perfectly. We own, too, several perspectives of his original design for the hall itself, ranging from the most sketchy to very finished drawings, and all in pencil and wash. There is one looking through a long portico, with a high wall on the left interrupted with seated figures in niches; and, on the right, tall columns rapidly disappearing in perspective. Pale shadows cross the floor from the colonnade; a few figures stroll to emphasise the distance; and there is one dark slate blue glimpse of sky at the end. That single touch seems to colour the whole drawing, just as the few strong tints on the ceiling of the Pazzi Chapel did, when Stevens drew it.

Charles Robert Cockerell, the first recipient of our Royal Gold Medal, was born 25 years before Elmes and outlived him by 16. As Lutyens might have been, he was described as 'a man to whom drawing was as natural a mode of expression as speech'. He was undoubtedly one of the greatest draughtsmen in the history of English architects; and we possess a large and precious box of his drawings. He worked at one time with Alfred Stevens, measuring mediaeval buildings such as the Angel Choir at Lincoln. Iconography seems then to have held a special interest for him. But we think of him really as an eminent classicist, whose supreme effort was his unsuccessful competition design for the Royal Exchange, the magnificent perspective of which we keep framed and hanging in the Library. The preliminaries for this are quite first-class—brilliant pencil sketches with dabs of sepia. They rank with similar work by Stevens or Elmes. And further, his water colours convey a Greek temple, a Norman doorway, landscape or shipping with the same intensity.

Yet he was equalled as a draughtsman—if not surpassed—by his son, Frederick Pepys Cockerell (1833–1878), whose short life must have been entirely devoted to drawing buildings. Travelling in Italy in 1855 and again in 1858, he produced a mass of studies, many of which are as good as any ever done. I recommend an examination of his drawings of great tombs in Rome and elsewhere, all in pencil or brown

ink and in perspective or elevation, with a little water-colour to emphasise the design. He sketched in Bologna those massive leaning towers (which resemble so curiously the blocks of flats recently put up among the trees by Putney Common). He drew anything architectural with equal brilliance. For instance, the west door of Crowland Abbey, that entangled German Gothic font cover at Ulm, a Byzantine capital at Venice or a fragment of Greek marble drapery in a museum. He did not hesitate to tackle the whole interior of a cathedral; but to me his most attractive drawing is a sketch on grey-blue paper inside Santa Fosca at Torcello. This shows a masterly use of brown line and sepia wash, leaving the high-lights to the paper itself.

I think it worth noting that the two Pugins, Elmes, the two Cockerells and Alfred Stevens all lived between the years 1762 and 1878. That is, the period of a little more than a century covers all their lives, and 41 years of it were in Queen Victoria's reign. If, then, her early years are thought contemptible in matters of art and taste, it may be claimed justly that here was a minor eruption of high art in the medium of architectural drawing. It is, of course, a specialised art; and I contend that these six Englishmen were equal to its greatest exponents of any other time or country.

Moreover, they were all architects—or, at least, intensely interested in the design of buildings. Nearly all their drawings and sketches indicate that. But John Sell Cotman (1782–1842) made architectural pictures to please himself and those who possess them. The Library is among the latter. It owns a number of his water-colour drawings, all notable for conveying the dramatic quality of the buildings, especially the very fine set of Castlecre Priory in Norfolk. He delighted in ruins.

But W. E. Nesfield (1835–1888), took a different view. He preferred buildings still intact from the Middle Ages. He drew them very distinctly in outline, with a little pencil shading only. The results record the cathedrals and abbeys as admirably as a first-class modern photograph. He worked on smooth paper with a sharp pencil; and he was very skilled in leaving out the non-essential. Examples of this which we possess are the corner of the Abbey at Cluny, the spires of Chartres and one of that tower at Laon with the cattle peering from the niches.

Our exploration may be said to enter now the territory of the later Victorian and Edwardian architects. Take first that eminent man, Sir Gilbert Scott (1811–1878). We have between 400 and 500 of his drawings, some of which show the joint work of himself and his son, John Oldrid Scott. One or two of them may be by George, Sir Gilbert's other son, who died young and was possibly a genius. There are some important drawings in the collection. I should mention 12 of the Foreign and India Offices, including a perspective view; two original studies and four per-

spectives in pencil of a Gothic Foreign Office; with an elevation to Parliament Street for the Home and Colonial Offices, dated 1869. More stimulating are two large original drawings of that *courageous* work, the Albert Memorial. They are half-inch scale details and are signed by Sir Gilbert. Another by him of the reredos in the chapel of All Souls, Oxford, is equally impressive; so are a dozen very fine designs of the big Nicholas Kirche at Hamburg. But the drawings by Oldrid Scott have a certain charm of their own, such as those showing the restoration of Bridlington Priory and four—really beautiful—of Hereford Cathedral's west front. In fact, when the Gothic Revival comes to be heavily written up, here is a valuable mass of material. For I have learned from this experience in the R.I.B.A. Library that there is no better way of imbibing the history of English architecture than by perusing the drawings there. It offers a more direct access to men's minds than books provide. It is also an agreeable exercise and, at times, exciting.

One drawing which we possess by Arthur Cates—who died in 1890—is not exhilarating. It is a quarter-inch scale elevation of No. 76 Jermyn Street, now demolished. It is pathetic, because his rather deplorable architecture is so devotedly drawn—in pencil with pale washes and some shadows. The plate-glass windows, subdivided by French Gothic shafts carrying square heads, are very neatly put in. So are the blinds and curtains inside.

This, however, led me to the discovery of our drawings by Norman Shaw (1831–1912). To begin with, those who care for 'ye olde' style will find much material and many useful details from his early years in practice. But his important buildings are richly illustrated too. That great house, Chesters, appears in a set of working drawings, dated 1891; and Lord Portman's mansion, Bryanston, in another. The roof plan here, with its 120 chimneys, is of some interest. So is the half elevation of the south front, done in an ink line of varying thickness. All the brick courses are put in, with a neutral tint in the windows, blue on the lead and green slates. The drawing does, however, convey the grandeur of that house; and Shaw's sketch, in perspective, of the proposed terracing in front is an attractive thing.

Some of his original details of those well-known houses in Queen's Gate and neighbourhood are impressive for the apparent ease with which that elaborate treatment was tossed off. One notices this facility in most of the drawings. I was only able to discover on his studies for a new wing at Cragside, Northumberland, a hint of hesitation and signs that he sometimes rubbed out his first idea. It was the same in the detail drawings he did. 'Slick' is the unfortunate word I must use for the first time. That huge fireplace at Addington Park, for instance. The inch scale pencil drawing of it—an affair in two storeys, most elaborate, basically stone, with two or three marbles and ironwork joining in—illustrates the untrammelled wealth of the time (1900)

and the fluidity of Shaw's hurried expression of it.

Nevertheless, his pencil sketches and studies for the Quadrant and the Piccadilly Hotel are different. They indicate by their number and quality how he must have worked to create that design. One can quite clearly follow its evolution; and, for that reason as well as for their distinction, these studies have great value.

Some drawings in the Library by John Francis Bentley (1839–1902) are analogous to these. We have the complete designs for Westminster Cathedral; but, in addition, there are a number of large drawings which show very clearly the effort he made—one might almost say the battle he went through—to achieve that great interior. Though it appears very simple, the inter-related brick arches are most complex. Clearly Bentley was not satisfied easily; some of these designs in structure are positively perforated with compass point holes.

The drawings of Sir Aston Webb (1849–1930) are not like that—at least those which show his struggles to invent the south front of the Victoria and Albert Museum. Most of them are more surprising than the work as it was executed. Tall and short towers compete with domes popping about; and none of these studies seem to be drawn as if their author was enjoying it. Harshly put in, without any tenderness of line, they suggest that they were dashed off between committee meetings. Hence I found it something of a relief to look at the work of F. C. Eden (1864–1944). For here was an excellent architect of ecclesiastical buildings and, at the same time, a draughtsman in the great tradition. One appreciates that in the inch scale detail—pencil and wash—of the east window at Ardeley church; and, even more so, in his 1917 drawing of the rood-screen at Mullion. The minute detail is put in with a very fine pencil, sufficiently enriched with soft shadows and three or four colours only. One finds, also, a strong feeling for *material* in Eden's designs for a chapel at St. John's Home, Cowley. But perhaps his best are the large scale drawings for church furniture, especially the great altar cross for Keble College.

Now those were intended for the erection of buildings or for the construction of things. But the few splendid perspectives we possess by E. A. Rickards (1872–1920) are more valuable as examples of very powerful draughtsmanship. For, even if his personal handling of a sort of neo-baroque is out of sympathy with modern thought, it is a pleasure to look at his black pencil perspective of Edinburgh's Usher Hall or the pencil and wash drawing of Colnaghi's premises in Bond Street. Then, though Francis Bedford lived about 70 years ago—and throws out my slippery chronology—he must be inserted here on account of the supreme quality of his draughtsmanship. Very few can have measured and sketched—chiefly sketched—with such enthusiasm. An example is his astonishing drawing of the ambone in Salerno Cathedral, in which both the

sculpture and the mosaic inlay are exquisitely conveyed. His measured drawing of the screen in the Sistine Chapel is perhaps more remarkable; and all his works indicate that he was a man who studied architecture in the right way. Obviously he loved it; but, in pursuing it, he drew not only complete views of buildings, but added to them small plans and details of their mouldings.

Some of us, too, will recall perhaps meeting Cecil Brewer (1871–1910), an architect whose recreation was making pictures in which ancient towns and buildings featured largely. Happily the Library owns a number of these delightful things. One is that water-colour of a street junction in Pisa. It is on grey paper; and Brewer clearly enjoyed the sharp perspective of a near cornice; and another is the study of San Francisco at Palma. Here the almost blank front of the church is bravely put in. Its warm ivory surface is broken only by a simple baroque doorway and one round window. He saw, one supposes, that the very blankness of the main feature in the picture gave it the slight oddity which tickles the eye. He was very much an artist—possibly more than an architect; unlike Sir Reginald Blomfield (1856–1942) who was an architect but much more a scholar. We have some of his gentlemanly pencil sketches of the Propylea at Athens.

Sir Edwin Lutyens (1869–1944) comes in a category by himself, for two reasons. First, the Library possesses about 2,700 of his drawings; and, secondly, he was, in my view, the greatest *artist in building* this country has produced. I have said that elsewhere and repeat it now. Fifteen years after his death, architecture has almost transformed itself into a branch of engineering, and the humanist tradition is practically dead. Yet Sir Edwin's designs, especially the very late ones, made in an almost abstract style, may, one day, supplement the hard, flat rigidity of our modern structures and help them to say a little more than they do.

Furthermore, Lutyens must be considered unique—and especially in the company I have so far explored—from the fact that he never sketched; that is, in the usual sense of that word. He never drew buildings designed by other men; though, in his youth, he would trace the outlines of rustic dwellings on glass with a sharpened piece of soap. Yet he was always drawing something. Even his jokes were conveyed more often by his pencil than by words. Like C. R. Cockerell, he found it easier. And, of course, he designed every detail of all his works himself, with a dauntless extravagance in time. Hence we find, in our collection, original rough sketches, tentative designs, full size details and complete working drawings, all from his hand, in pencil and usually on fragile detail paper. Nowhere in the Library are there such illuminating examples of the birth and development of a building. We have, for instance, more than 60 sheets of squared paper, covered both sides with preliminary thoughts, variations and scribbled thumb-

nal sketches for the Viceroy's House at Delhi. We have, in addition, 200 working drawings of that palace, with numerous details and studies for the Delhi Order—as Lutyens called it. There are, too, 500 drawings of all the principal rooms, their furniture, chandeliers and even clocks. Many of these have the Viceroy's comments written in ink on them.

Among the original sketches and studies I should mention the 60 of Britannia House, Finsbury; the 100 or so of the Midland Bank, Poultry, and other town buildings; the notable set of 35 sketches and rough perspectives for a monument to Edward VII, alternatively in Piccadilly and Trafalgar Square; several hundred sketches and full designs for his best-known country houses; 14 drawings of the Cenotaph as finally worked out; and more of the Great War Stone, Hampton Court Bridge, and all his memorials. Those are only some items in the Lutyens collection. Many of them are now suspended in their steel cabinets and can be examined easily.

That is the point at which I close my exploration of the British drawings. There are, of course, others which I could not pursue, owing to the time involved; and there are, doubtless, many sketch books, big and small, containing unknown treasures. Yet it might be said that even those drawings to which I have referred allow us to see our best architecture in a mirror held, as it were, in the draughtsmen's hands. From the national point of view this succession of architects who drew always skilfully, often joyfully and sometimes with high inspiration, is a thing to be proud of. The collection continues to be made; and we, living now, may consider it an honour, one day, to have a few sheets of our work enshrined in it.

Finally, the drawings in the Library by foreign architects and draughtsmen. I say 'in' the Library, because the most valuable are not actually our possessions. These are what constitute the collection so generously put on permanent loan to us by the Dukes of Devonshire. Then, secondly, there is the gift of Sir John Drummond Stewart, made in 1839. It would be interesting to know why he gave away what would be now quite a substantial heirloom. I propose to explore these two collections together and amalgamate them with other foreign rarities we possess. It will be hard, as before, to avoid the catalogue effect; but I shall group the items as much as possible.

First, there is a large volume containing about 300 drawings by Jacques Gentilhartre. One might call him the French equivalent of John and Huntingdon Smithson. Described as a 'Receuil des plus beaux portails de plusieurs Églises de Paris', it illustrates a number of entrances, examples of church furniture, fireplaces and other details of buildings. It is undoubtedly of historical interest; but another thick folio of 1713, from Cremona, is really exciting.¹ This contains 80 drawings by Giuseppe,

Battista and Giovanni Natali, with a few by Giovanni Massezza thrown in. I call them exciting because they show us baroque *being created*. The ink sketches for a domed church and two towers are deliciously drawn; others are designs for altars, retables and a baldacchino, and some of noble staircases and columned arcades which look more like studies for stage settings. All are of the highest quality.

Three very distinguished drawings represent France. One, in pen and wash, by Pierre Puget (1662–1694) is a very rich elevation of a gateway, with alternative treatments on the centre line; and two others by Jean Desprez (1743–1804) are magnificent interiors of St. Peter's. These two may be compared with an unnamed late 18th century illustration we have of the same subject—possibly by one of the Bibiena family. Quite superbly drawn, it really conveys the great scale of that church.

Giuseppe Galli da Bibiena was probably the most notable of that family of draughtsmen. He was chief theatrical engineer and architect to the Emperor, Charles VI, at Vienna; and, in 1740, he published a folio of his designs for stage scenery and monuments. The Library is rich in these splendid perspectives. In most of them one sees a drift from baroque to an advanced rococo; but several, as drawings, can be described only as staggering. For instance, that design for a monument to Francisco Ludovici in an Italian Gothic church appears to be 60 ft. high. The upper part is a circular domed temple intriguingly supported by four groups of three Composite columns, of which the centre one stands well in front of the other two. This produces a strongly broken entablature and attic at the four projections. Saints and urns are perched on every point; yet the intricate flamboyance of the affair is modified by the perfect draughtsmanship and the clever grading of the shadows.

Giuseppe was indeed a master at drawing wriggled cornices. They almost squirm. We have one design, however, which is presumably half a back-cloth. It shows the interior of a large hall in relatively quiet baroque. A centre staircase and one at each side are drawn in the most skilful perspective. Executed in a sepia line and wash, it has some delicate tinting as well. A pale violet marbling, with a suggestion of polish, appears on the columns; the capitals and balusters are in a faded gold; and a curious but very pleasant heliotrope is added to the lower members of the cornice. All this is on a drawing measuring 21 in. × 16 in. only.

Yet I found the work of Mauro Tesi (1730–1766) preferable to anything of the Bibiena family. His drawings are more sober. They show real architecture, though imaginary buildings. That is he uses forms which could be created in stone or marble with ordinary craftsmanship. He composes them into pictures with wonderful skill, and so designed as to make one want to stroll about in the edifices. For instance, we have one of a wide three-aisled atrium,

dramatically shadowed and leading into a more brightly lit courtyard. It is sketchily drawn but with great mastery, especially in the suggestion of detail. A whole Corinthian capital is conveyed by six lines and two blots; and the delicately graded shadow washes give the drawing a delicious softness.

The works of G. P. Panini, who died two years before Tesi, have not the same touch of mystery in them. His romantic compositions, by comparison, look almost topographical. His ruins might very nearly exist; and his free and deft use of human figures adds to the reality of his scenes. His drawings are looser than Tesi's, less compactly architectural; his pencil seems to slide about more merrily and only an occasional line is ruled. There is, among others, one very fine example in our collection. It shows, in pen and wash, a lively scene composed of a portico, a colonnade, an obelisk, some statues and a number of people. And another—no more than 4 in. square—is a view across the interior of a high Renaissance church. Possibly this was a preliminary to a larger and more finished picture; yet this scribble in brown ink and a dab or two with a brush, is immediately satisfying. It displays that peculiar nature of quick sketched studies in relation to finished works which we, who try to do the latter, very often discover to our grief.

We have, however, one really noble drawing which is as finished as it could be. This is a large interior view of the Voting Hall of the Doge's Palace. *Everything* is put in, with even the rich ceiling amazingly rendered. Yet the tones of the sepia washes on a greyish line unite the whole to produce something delightful to look at for as long as the eye can continue to follow its intricacies. The author of this lovely work is unknown, though Canaletto has been suggested.

Indeed, quite a number of our finest drawings are without exact attribution. That is perhaps a pity; but it does not lessen their value as works of art. One, most beautiful, is a design for a Tabernacle: that is, an altar framed by columns and an entablature, with the central figure in a niche. The architecture of this is so admirable and its presentation so masterly that I should like to think it is by Michelangelo.

There are, too, some more rare and valuable items in the Burlington-Devonshire collection (apart from the rather grim designs of villas for other noblemen said to be by Lord Burlington himself). One may discover Scamozzi's original drawings which he made for the Villa Papa Giulio—line and wash elevations, with some interesting marginal notes; a detailed elevation of the Nymphaeum there, labelled 'Vignola'—in a very fine ink line with sepia shadows—accompanied by a larger scale section through the mouldings of a plinth, minutely dimensioned in height and projection; and a design, attributed to Scamozzi, for a covered-in bridge—not unlike the Rialto bridge, but with fountains spraying laterally from the springing of the arches.

¹ Presented by that great friend of the Library, Professor Donaldson, in 1869.

² Sometimes described as a catafalque.

But, undoubtedly, the most rare and valuable item in our whole collection is that series of folios containing the designs by Palladio for many of his principal works. I must confess that when I saw his Basilica at Vicenza in strong moonlight and found it almost unbearably moving, it was an extraordinary pleasure to discover, some years after, his original studies for it in Portland Place—studies made about 20 years before Inigo Jones was born. One can see, also, his great interest in the Orders, fully drawn on one sheet, all five of them, together with elaborate notes on entablatures, capitals and bases, richly dimensioned. One sketch perspective, supposedly of the Palazzo Bramante-Raffaello at Rome, is drawn in ink with hatched shadows. It is interesting as a very early instance of that class of work. Another is a pencil and ink elevation of the Palazzo Chiericati at Vicenza; and, from that place, we have Palladio's designs—almost complete—for the Valmarana and the Porto Colleoni palaces. These are only a few of the drawings made by that master of architecture

400 years ago. Even today they are very worth looking at.

Finally, a great folio volume called *The Book of the Palaces of Genoa*, though not so interesting to architects, is of great historical value. This was compiled by Peter Paul Rubens in 1607, when he went to Genoa in the train of the Duke of Mantua and painted two famous pictures there. It contains 139 plans, sections and elevations of palaces very recently built. Six of the drawings are attributed by the highest authority to Rubens himself, whose object was to induce his own Antwerp to adopt this civilised style. One recognises several palaces in the Via Balbi (now Garibaldi) by Galeazzo Alessi, as well as Santa Maria in Carignano, finished four years before Rubens saw it. One can perceive the hand of a great painter in the elevations ascribed to him, especially in the figures he introduces. But the architecture of those profusely decorated fronts, though fully put in, lacks clarity in its detail.

I wish to end this exploration of the R.I.B.A. treasures with a reference to some

drawings entirely different from any already mentioned. I refer to those collected by Thomas and William Daniell when they went to India in 1785; and, with them, eleven more of the Palace and Temple at Tanjore, presented by that Rajah to the Library in 1839. They are drawings by natives, chiefly of mosques and tombs, in elevation and perspective. But it is not our kind of perspective; only certain walls converge or slope off, most effectively, from those in elevation. There is one of the Pearl Mosque at Agra. Another shows a tomb interior, very rich in colour, yet restrained and making use of gold. And still another is an elevation of a pagoda of the usual beehive shape. It is drawn in minutely thin ink lines, with microscopic detail, palely tinted in yellow, pink and puce. Several illustrate, with exquisite care, large areas of coloured inlay; yet, even there, the palette is limited to a blue-grey, venetian red and an occasional dull orange, always against a white sky to convey the heat of India. These 50 or 60 drawings have, for me at least, a peculiar but an appealing beauty.

Hampstead Garden Suburb 1907-1957

By W. A. Eden, M.A.(L'pool), F.S.A. [F]

IF WE CONSIDER the ancestry of the idea, the social and political conditions and the state of English architecture at the moment of its inception, and, added to these, the subsequent career of its principal architect, it is not surprising that Hampstead Garden Suburb should have become, within a very few years of its foundation, one of the classics, if not the classic, of modern English town planning. Certainly when one looks back to that day in May 1907 when Henrietta Barnett cut the first sod of the first pair of houses in Hampstead Way, there seems scarcely an idea, among those generally current today, that was not at least implicit in the Garden Suburb as it was then conceived. For this reason it may be of more than academic interest, in its Jubilee Year, if we attempt to take stock of the achievements—and, also, of the shortcomings, for its creators would have expected it, and understood—of this pioneering enterprise.

The Church of St. Jude-on-the-Hill, crowning the vista up Heathgate from the Hampstead Heath Extension, stands as a permanent reminder that Hampstead Garden Suburb was begotten of Whitechapel, where a less spectacular St. Jude's, hemmed in by slums, had been the scene of the labours of Samuel and Henrietta Barnett for more than 20 years. The young bride who, in 1873, went with her husband to what the Bishop of London called the worst parish in his diocese, inhabited mainly by a criminal population, was a protégé and lifelong friend of Octavia Hill, herself a grand-daughter of Dr. Southwood Smith, the pioneer of public health, and a disciple of the Christian Socialist, F. D. Maurice.

To the ideas concerning public health, the management of housing property, the organisation of charity and the education of working men that were current in the circle of Octavia Hill (who also, it is pertinent to recall, was later one of the founders of the National Trust) Henrietta Barnett added of her own a lively interest in matters of art. If Samuel Barnett was most deeply concerned about the sins of Whitechapel, his wife was perhaps not less moved by its ugliness. Perhaps, too, she had her own interpretation, somewhat more literal than his, of her husband's belief that 'God means us *here* to walk in green pastures'.¹ At any rate, they were, between them, responsible for starting a whole series of charitable and educational institutions in which it is permissible to see a hint of the coming Welfare State, and among which it is relevant to mention here the Children's Country Holiday Fund, the Whitechapel Art Gallery, and, perhaps most important of all, Toynbee Hall.

Characteristically, Henrietta Barnett's first thought on learning of the project for the Hampstead Tube, involving the erection of a station on the western edge of Hampstead Heath, was of the threatened 'ruin of the sylvan restfulness of that portion of the most beautiful open space near London';² her immediate reaction the organisation of the Hampstead Heath Extension Council to save 80 acres of land from 'the rows of ugly villas such as disfigure Willesden and most of the suburbs of London'.³ The idea of the Garden

¹ Henrietta Barnett, *Canon Barnett, His Life, Work, and Friends*, edition of 1921, p. 46.

² *Ibid.*, p. 704.

³ *Ibid.*, loc. cit.

Suburb, she tells us, grew out of the Hampstead Heath Extension; and, she goes on, 'it was not an original idea. Mr. Cadbury and Lord Leverhulme had already erected Garden Villages around their factories, and the proposal for a Garden City at Letchworth was attracting thoughtful attention'.⁴ The list might have been enlarged by the inclusion of Sir Titus Salt's industrial village of Saltaire: and, indeed, except in the matter of industry, the Garden Suburb, as it came to be built, embodied ideas that had been foreshadowed by early 19th-century radicals like Roebuck and Buckingham, by Christian Socialists like Charles Kingsley, and by the young Disraeli, in his *Sybil: or the Two Nations*. More particularly, at the very heart of the idea of the 'New Whitechapel' was the thought of promoting the unity of the 'two nations' by means, not so much of a common purpose as of a common environment—a variation on the theme of Toynbee Hall.

The time was in every way propitious for the venture, both ideologically and politically. In 1898 Ebenezer Howard had published his *To-morrow*, and, as we have already seen, Letchworth Garden City, the first embodiment of his idea, had been one of the sources of Henrietta Barnett's inspiration. It was begun in 1903. In 1904 there appeared a book, *The Improvement of the Dwellings and Surroundings of the People: the Example of Germany*, by T. C. Horsfall, a Manchester business man and a friend of the Barnetts, in which the drawing up of 'town extension plans' was

⁴ Canon Barnett, *His Life, Work, and Friends*, p. 705.

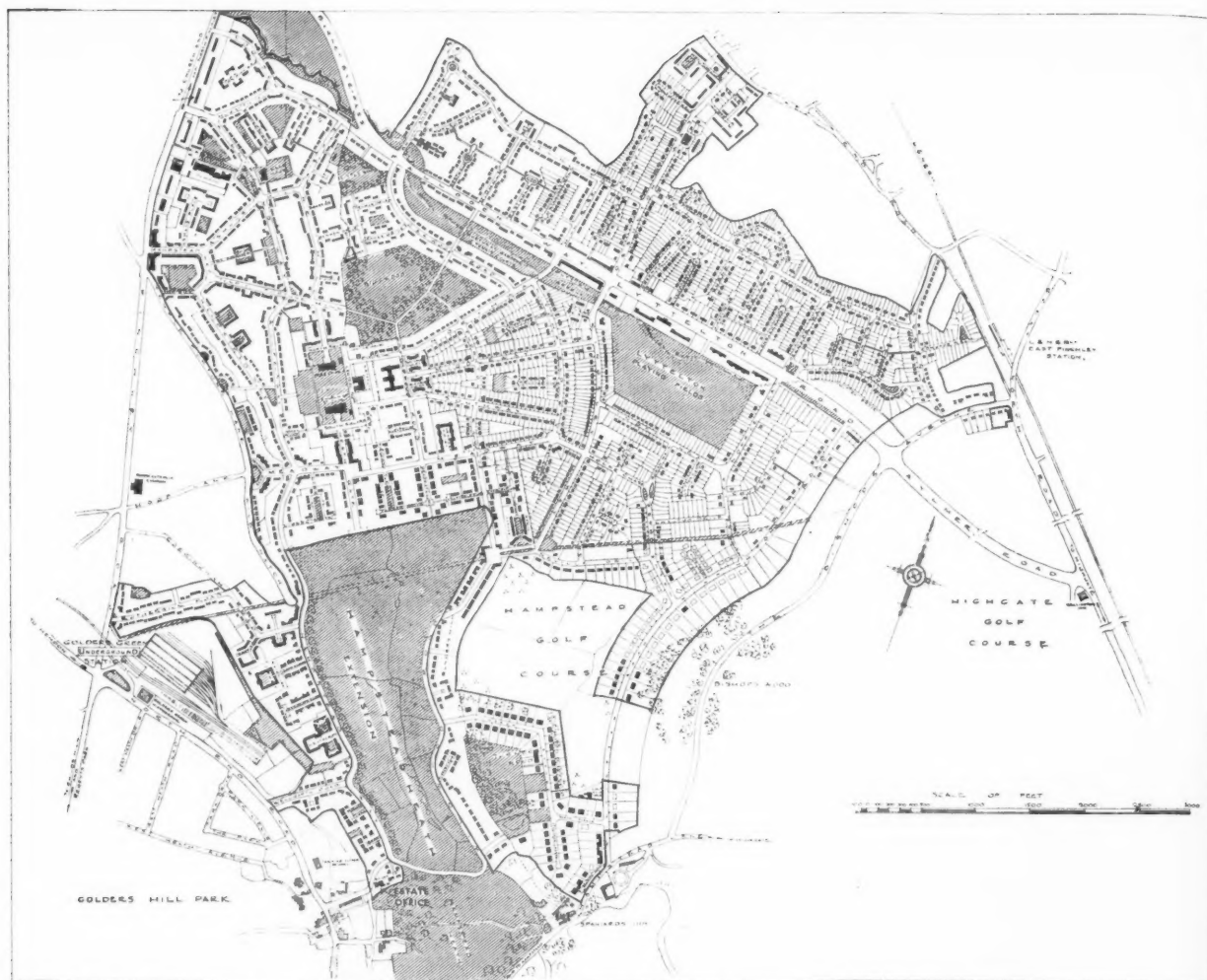


Fig. 1. Plan of Hampstead Garden Suburb in 1937

Reproduced from the plan published by The Hampstead Garden Suburb Trust Ltd.

advocated. The very next year, which was incidentally the year in which the proposal for the Garden Suburb was first made public in *THE CONTEMPORARY REVIEW*, the phrase 'town planning', till then unknown in English, appeared in the Minutes of the Birmingham Housing Committee, whose Chairman was John Nettlefold, author of several pamphlets on housing and allied subjects. It was not long before an influential deputation was waiting on the, at first, reluctant John Burns, President of the Local Government Board in the epoch-making Liberal Government of 1906, to urge the desirability of introducing legislation to promote this same 'town planning'. The result was the Housing and Town Planning Act of 1909, an innocent enough measure as it then seemed, though, in the event, scarcely less revolutionary than the same Government's People's Budget of 1910.

An important fact about the town planning movement is that it began at a time

when the art of planning towns, dependent as it is upon the existence of an integrated and generally accepted system of social values, was to all intents and purposes lost in this country. The scramble of the Industrial Revolution accompanied by a carelessly rapid expansion of industrial towns in the 19th century, had resulted in conditions which created a general revulsion against them as places to live in. Those who could afford to do so escaped from them, with unhappy social consequences which measures like the People's Budget were intended to mitigate. At the beginning of this century almost the only towns that remained architecturally and socially unscathed by industrial expansion were the small country towns; to which, though they were largely the products of time and custom rather than of art, the early planners, not unnaturally, turned for social as well as architectural inspiration. Many years before the Garden Suburb was thought of Samuel Barnett had written to his future wife: 'I have been

thinking of what you said of life in country towns. Truly this is the best form of life; in such close contact with nature we ought to live. . . .'⁵ More than 30 years later, when the idea had formed itself in her mind, one of the objects of the scheme was to show 'how thousands of people, of all classes of society, of all sorts of opinions, and all standards of income, can live in helpful neighbourliness';⁶ and this was to be achieved in such a way that 'from every part there shall be good views or glimpses of distant country'.⁷ Thus, although the model was the country town, the emphasis was on the country rather than the town.

Social trends and nostalgia for the life of the country town or village are both illustrated by the domestic architecture of the time. A striking social feature of the Victorian era had been the rise of a large professional class, who, in the last quarter

⁵ Canon Barnett, *His Life, Work, and Friends*, p. 65.

⁶ *Ibid.*, p. 716.

⁷ *Ibid.*, p. 706.

of the 19th century, were beginning to exert an influence as patrons of architecture. To meet their demands (and their purses) a new type of house, based on the picturesque country cottage, with its low floor heights, accidental groupings and absence of external or internal ornament, was in process of developing. In the early years of this century two main schools of thought were discernible within the general type, the one, commonly associated with the name of C. F. A. Voysey, aiming at a mode of expression based on a reasonable and straightforward use of good materials; the other seeking some 'further discipline and finding it in the style, based on the domestic brick building of the late 17th and early 18th centuries, to which Norman Shaw had pointed the way in his later work. Common to both schools were an interest in texture, a tendency to stress wall-surface at the expense of window, and a liking for exaggerated high roofs—all characteristic of the picturesque approach to architecture with its emphasis on sensation rather than sense. One of the most significant features of the design of Hampstead Garden Suburb is that each school contributed not

only designs of particular buildings or groups of buildings, but also a portion of the street plan of the estate itself. Before this can be discussed, however, something must be said about the disposition of the site.

When one remembers that the immediate occasion of the proposal for the Garden Suburb was the construction of the Hampstead Tube, and that the first object of the founders was 'to do something to meet the Housing Problem by putting within the reach of the working people the opportunity of taking a cottage with a garden within a 2d. fare of Central London',⁸ it is clear that the land acquired for the purpose from the Trustees of the Eton College Estate was far from ideal. As may be seen from Fig. 1 where it is shown without garden boundaries, it lies mainly to the north of the Hampstead Heath Extension from which, as also from the Finchley Road, it rises, in places steeply, to its highest point near to its eastern boundary. This skirts the western edge of Big Wood and thence steps south-eastward to the north-east corner of the Heath Extension.

⁸ Canon Barnett, *His Life, Work, and Friends*, p. 706.

The main approach is from the Finchley Road, which forms the western boundary at the northern end. At the southern end, however, a wedge of land bounded by Temple Fortune Lane separates the estate from the Finchley Road, except where the narrow strip of Rotherwick Road, acquired later from the Ecclesiastical Commissioners, comes down immediately to the north of Golders Green Tube Station. Hoop Lane provides a connection across the alien wedge, but in the main the effect is to impose a barrier between the Suburb and its life-line—the Tube. That in itself was a serious obstacle to good planning; unfortunately a romantic impulse of the Founder herself provided another.

A very old tradition associates churches with elevated sites, and often when the sacredness of such sites has attracted pilgrims, or their safety from sudden attack has made them also desirable for commerce, markets have followed, and cities have grown up with their religious and commercial centres situated at or near their highest points. Such cities are frequently eminently picturesque in appearance, and it is more than likely that it was the

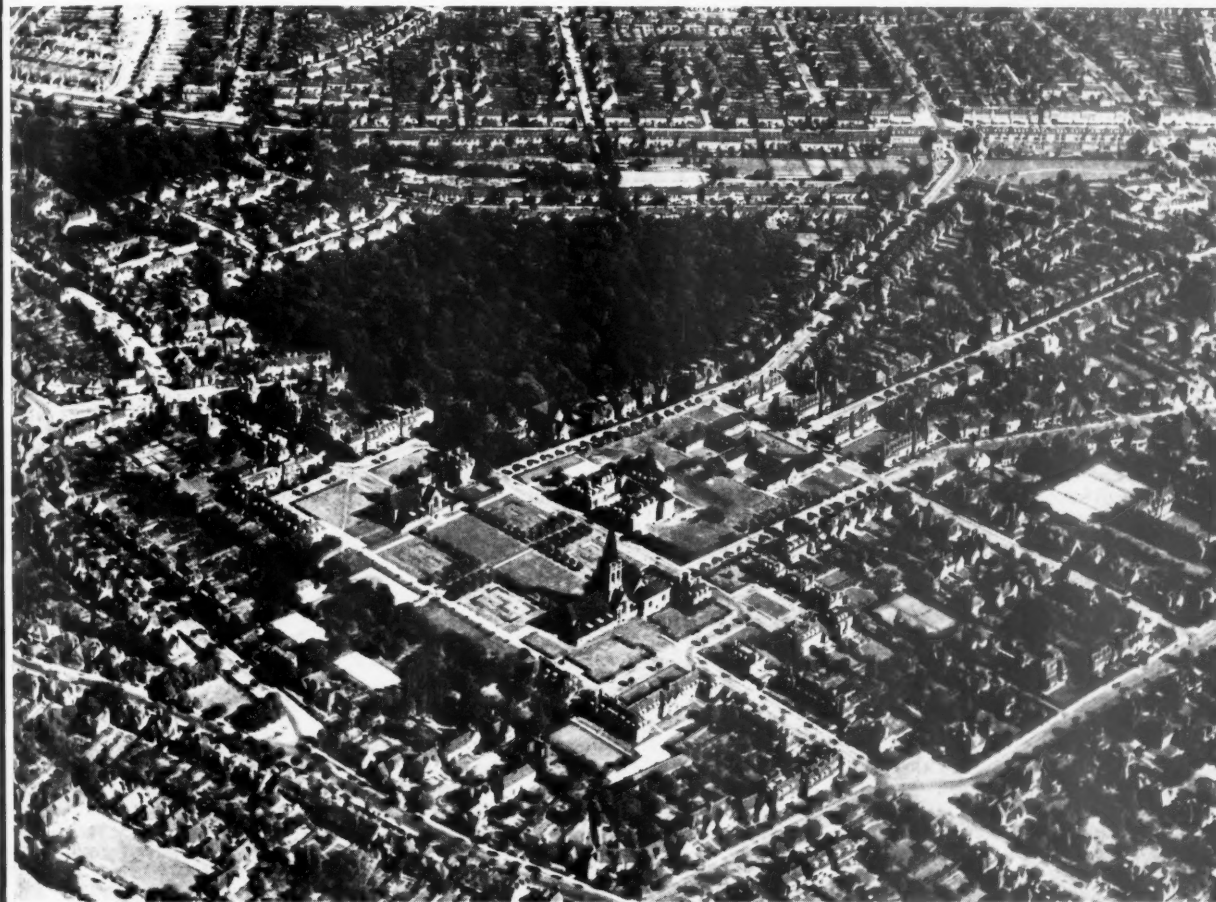


Fig. 2. Hampstead Garden Suburb from the air, showing Lutyens' layout of the Central Square and, on the left, Parker and Unwin's picturesque street planning

Aerofilms Ltd.



Fig. 3. Heathgate looking towards St. Jude's, with houses by Lutyens in association with G. L. Sutcliffe, 1914-15

memory of places like Durham and Lincoln that prompted Henrietta Barnett to think of making the highest point the centre of the new Suburb. She herself describes how, when in the early days she was introducing Lord Crewe (one of her principal supporters) to the site, Lord Crewe and she 'walked across fields, climbed the hedges, and toiled through stubbly grass' until they 'reached what is now the Central Square'. 'This is the highest place, and here, as is fitting, we will have the houses for worship and for learning', she announced: 'and there', she proudly adds, 'they now stand'.⁹

Unhappily they stand in the midst of deserted open spaces because the principle of the magnet—undoubtedly the soundest feature of Ebenezer Howard's theory of the Garden City—was forgotten. The pull, at Hampstead, was all away from the Central Square, towards the Tube Station, whither the working members of the community would be bound to make their daily journeys, and the Finchley Road, to which the housewives would be drawn by the shops. It is strange that the woman who had carried her social gospel into Whitechapel should not have felt that the place for her 'worship houses' was down in the highways and the by-ways, in accordance with that alternative tradition of the Church by which it has brought its ministrations wherever

men have congregated for their secular purposes. The fact that she did not is perhaps an illustration of the strength of her reaction against Whitechapel.

The intention expressed in the statement of the Trust's objects, that the new Suburb might be 'laid out as a whole on an orderly plan' was only partly fulfilled. The statement goes on: 'When various plots are disposed of to different builders, and each builder considers only his own interest, the result is what may be seen in the unsightly modern streets'.¹⁰ It would be interesting to know whether this was the first appearance of the builders—who, incidentally, had been responsible for most of the building in 18th-century country towns—as the scapegoats of the modern planner. Be that as it may, it seems strange that the promoters should have ignored the logic of their own statement, and appointed two architects to prepare the estate development plan: and when a third had followed with the design for the extension begun in 1923 by Co-partnership Tenants Ltd., the result, though nobody would call it unsightly, was, it must be admitted, a trifle inconsequential.

In 1906 the obvious choice of architect-planner for a venture such as this was Raymond Unwin, who had recently, with his brother-in-law and partner, Barry

Parker, planned the new Garden City at Letchworth. Parker and Unwin leaned to the Voysey rather than the Shaw school of domestic architecture; and Unwin, with his interest in liberal ideas and causes, and his gift of lucid and persuasive exposition allied with great personal charm, must have struck Henrietta Barnett as a man sent from heaven for her purpose. Certainly his sense of a social mission marked him out to be the Father of English Town Planning. With him the Trust appointed as consultant Edwin Lutyens, then in process of turning from his earlier ideas to the greater discipline of the style he made so peculiarly his own. He advised generally on the layout, and was particularly concerned with the Central Square and the buildings surrounding it. The thought of these two men, Unwin as much social reformer as architect, Lutyens relentlessly devoted to the pursuit of an architectural idea, working in collaboration to produce the plan of Hampstead Garden Suburb, recalls the story of two residents at Toynbee Hall, one a Progressive and the other a Moderate, who 'used to go out in the morning, arm in arm, to separate at the door in order to canvass each for his own election to the School Board'.¹¹ Unfortunately the dictum of Benjamin Jowett on which the societies of Toynbee Hall and

⁹ Canon Barnett, *His Life, Work, and Friends*, p. 707.

¹⁰ Canon Barnett, *His Life, Work, and Friends*, p. 706.

¹¹ Canon Barnett, *His Life, Work, and Friends*, p. 431.

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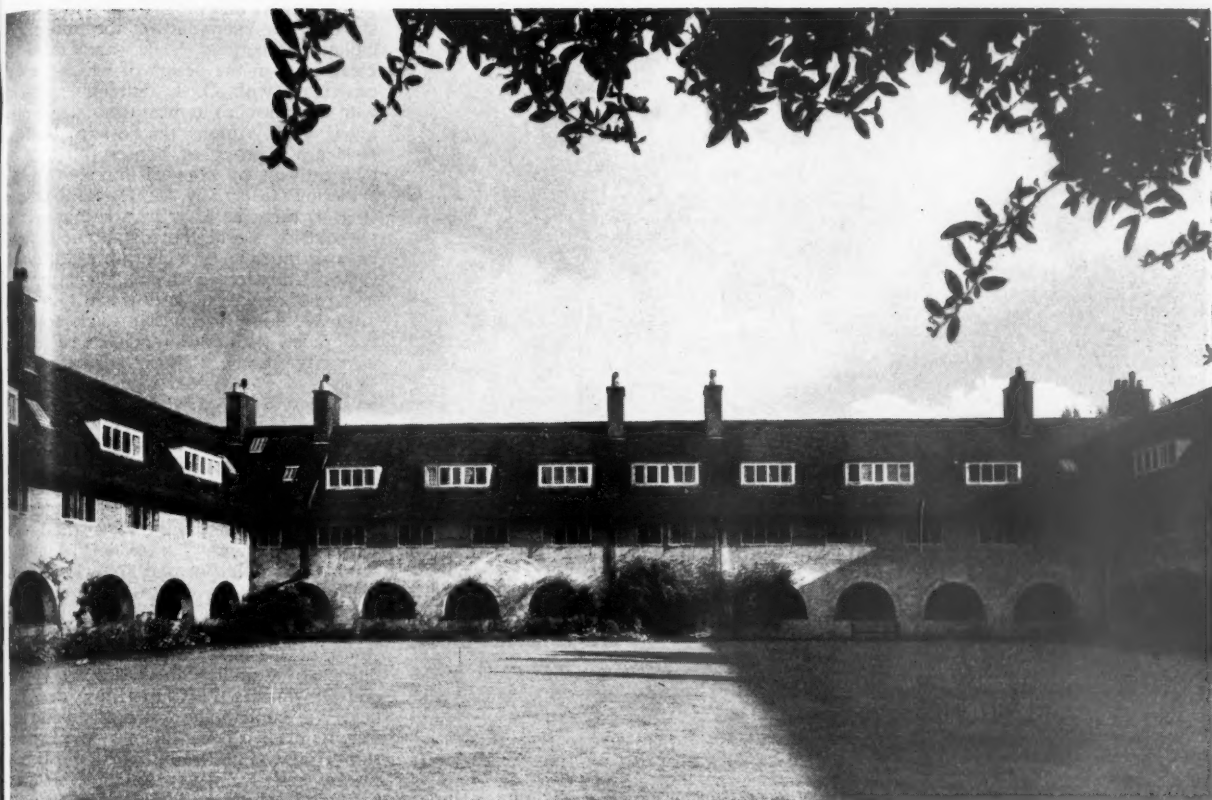


Fig. 4. Waterlow Court, by M. H. Baillie Scott, 1909

Hampstead Garden Suburb were based—'ignore differences. They will disappear'¹²—does not apply to works of architecture. The differences between the contributions of Unwin and Lutyens to the plan of the Garden Suburb still remain, and must now be described.

In accordance with the general ideas underlying the whole conception of the estate, Unwin's aim was 'so to lay out the ground that every tree may be kept, hedges duly considered, and the foreground of the distant view preserved, if not as open fields, yet as a gardenized district, the buildings kept in harmony with the surroundings'.¹³ One detects a lingering feeling that it would have been better not to build at all; but since it has reluctantly been decided upon, building is to have the subordinate, rather than the dominant, part in the ensemble—a difficult thing to accomplish at eight houses to the acre. The key to Unwin's solution is the phrase 'a gardenized district'. Ideas that originated in the 18th-century landscape garden, contrived for the delectation of people of leisure, have been applied to the planning of streets and the siting of houses for the accommodation of a working community. The result, which is to be observed most clearly in the northern and western portions of the estate,

is that architectural coherence tends to be sacrificed. Unwin's 'ways' and 'closes' provide a succession of charmingly picturesque views for those with leisure to stroll through them. They do not, however, make it easy for a stranger to find his way about in them, and their meanderings must be a constant source of annoyance to people hurrying to catch their morning trains.

In contrast to the northern and western portions of the estate, the Central Square and the area immediately to the south and east of it are laid out on a geometrically ordered plan that seems, at first glance, much more purposeful in character. It would appear to be more than likely that this is due to the influence of Lutyens, who was concerned to secure axial approaches and vistas to the three buildings—St. Jude's, the Free Church and the Institute—which he designed for the Central Square, and which he had no intention of subordinating to the landscape. In view of what has already been said about the dependence of the art of planning towns on the existence of an integrated and generally accepted system of social values, and in view, also, of the Toynbee Hall principle of ignoring differences, the siting of these three buildings is of special interest.

St. Jude's is placed so that its tower is on the axis from the Hampstead Heath

Extension up Heathgate and across South Square, of which the church forms the northern side. The Free Church is similarly placed on the south side of North Square, with its cupola on the axis of Erskine Hill. So far so good; each axis leads to an important building, and one is not conscious of any other building to compete with it, though as one approaches St. Jude's from Heathgate one experiences a sense of frustration on finding that the axial entrance is permanently closed. Between the two churches, however, is the Central Square, occupying the highest ground, with a strongly marked axis leading from west to east along an avenue of trees to the Institute, the centre of the Garden Suburb's educational and cultural life, which thus stands in a unique and commanding position, with the churches in equal subordination to it. It may be that this arrangement faithfully reflects the order of importance of the three buildings in the life of the Garden Suburb. Even so the axial approach to the Institute starts, diffidently enough, as a footpath leading up between two houses in Willifield Way, from which it is scarcely visible; and the approach for carriages is round the east sides of the North and South Squares. It is difficult, in the face of this arrangement, to avoid the conclusion that for Lutyens, at this stage of his development at least, an

¹² Canon Barnett, *His Life, Work, and Friends*, p. 430.
¹³ *Ibid.*, p. 707.



Fig. 5. Meadway, showing Nos. 7 to 13, by Michael Bunney, 1909, in the middle distance



Fig. 6. Turner Close, 1923, with houses by J. C. S. Soutar on the right

axis was simply a means to visual effect. In other words, though his manner was beginning to be superficially classical, his thinking was still picturesque and unfunctional.

The greater part of the original estate of the Hampstead Garden Suburb Trust had been developed when the outbreak of war in 1914 slowed up building activities. When, after the war, conditions were ripe for a large extension of the Suburb, a lease of a further 400 acres lying to the east of the earlier portion was obtained, not by the Trust, but by Co-Partnership Tenants Ltd., who had been responsible for the development of much of the land belonging to the

Trust. The extension plan prepared for them in 1922-23 by Professor Corfiato, in association with C. G. Butler, follows, in the main, the principles of Lutyens rather than of Unwin: but, whether in consequence of greater financial stringency or of a decline in pioneering fervour, its subsequent development has failed to maintain quite the interest of the earlier work.

Space is lacking for more than a passing reference to the work of individual architects. Besides St. Jude's, which, in spite of the unhappy roofing of the aisles, is unquestionably the greatest single achievement in the Suburb, Lutyens' houses in

North Square and on Erskine Hill are outstanding as examples of the more disciplined, Georgian, style, and those in Heathgate, in the design of which he was associated with G. L. Sutcliffe, present, with the church, the most dramatic grouping (Fig. 3). Among the best in the freer style are a group of houses (Nos. 7-13) in Meadway, by Michael Bunney (Fig. 5). Waterlow Court, by M. H. Baillie Scott (Fig. 4) turns its least attractive aspect to the outside world, having its best views inwards on to its own charming courtyard. Indeed, the closes, which Unwin made a feature of the layout, and which follow this inward-looking principle, provide some of the most attractive and characteristic incidents in the Suburb. Among them Turner Close (Fig. 6), with all the houses on its east side by J. C. S. Soutar, happily combines enclosure with a vista up the hill on to the cupola of the Institute; and Bunney and Makins' Linnell Close (at present spoilt by the black painting of the shutters) is an otherwise pleasing example of these architects' work in a small-scale Georgian manner. Parker and Unwin's shops at Temple Fortune, for which A. J. Penty is said to have been the responsible assistant, have a somewhat Teutonic flavour, perhaps as a result of Unwin's study of German towns, under the influence of Camillo Sitte. Also by Parker and Unwin was the Club House in Willi-field Way, unhappily destroyed in the last war. Its place is being taken by the Fellowship House (Fig. 7), by Messrs. Michael Darke and Kenneth Williams—a quiet unobtrusive little building which succeeds in carrying on the tradition of the Garden Suburb in these more impoverished days. Finally, among the contributions of the period between the wars, Mr. C. Cowles-Voysey's distinguished pair of houses at Bunker's Hill (Fig. 8) solve the problem of semi-detached duality by having a central door giving access to a space for dust-bins—an amusing variant of the non-functional axis already noticed in Lutyens' planning of the Central Square.

It remains, in conclusion, to say something about the influence of Hampstead Garden Suburb on the English town planning movement in general. When Raymond Unwin was appointed architect to the Trust he advised that his ideas could not be carried into effect under the existing by-laws, which could only be overruled by Act of Parliament. At once the Trustees set about promoting the Hampstead Garden Suburb Act, which, becoming law in 1906, provided a model for those parts of the Housing and Town Planning Act of 1909 dealing with density and street widths. Again when, in 1914, it became necessary for the Local Government Board to have a technical adviser in connection with schemes prepared under the 1909 Act, Unwin was the only man in England capable of occupying the position, and his appointment enabled him to exert a decisive influence on the development of town planning practice in this country. Through him the ideas that guided the development of Hampstead Garden Suburb became,

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Fig. 7. Fellowship House, designed by Michael Darke [4] and Kenneth Williams [4]

with all their virtues and shortcomings, the foundation of English statutory planning. Thus, if it is true of the Garden Suburb that, being based on reaction against existing towns and a romantic view of human nature, it failed to provide an example of logical and coherent planning, the same criticism may be levelled at the planning movement as a whole. On the other hand the virtues of Hampstead Garden Suburb reside in its details—its quiet closes with their pleasant lawns and tree planting, for instance, or its cleverly contrived incidents to save a tree or turn a corner—and generally in the lively, gentle and affectionate spirit shown by a whole company of architects in the design of its domestic buildings. Above all there is the grace and dignity of the tower and spire of St. Jude's, rising above the houses north of the Heath Extension. Henrietta Barnett may not have shown the soundest judgment in the placing of her 'worship houses' in relation to the life of the community, but both she and Lutyens had a wonderful eye for a picture. It would be hard to find its equal, as a deliberately planned effect, in all the intervening years of town (or town-and-country) planning.



Fig. 8. A pair of houses at Bunker's Hill, by C. Cowles-Voysey, 1929



Plate 1: Men's Lavatory (the tap fixed centrally over the 'normal' basin is for drinking water and was also metered; the door is not an entrance door)

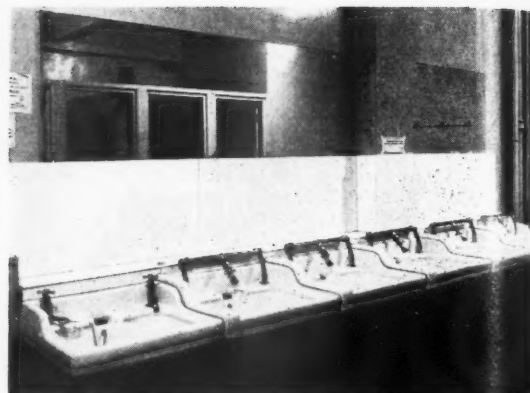


Plate 2: Women's Lavatory

Usage of Wash-basins in Office Buildings¹

By J. Crisp, Associate I.E.E., and A. Sobolev, B.Sc.(Eng.), A.M.I.Mech.E., A.M.I.Water.E.

IN AN EARLIER ARTICLE² an account was given of an experimental investigation which the Building Research Station made into the use of spray tap installations for ablution in office lavatories. That article was primarily concerned with economy aspects and it was shown that substantial savings both in water and fuel were possible; it was also pointed out that related economies in piping and wash-basin design should be possible. During the experimental investigation much information was obtained on the usage of a suite of wash-basins, e.g. the frequency of use through the year and through the day, revealing peak periods, the pattern of hot and cold water usage and factors governing the choice by the user of particular basins. The information on frequency of use was obtained automatically by fitting each tap with an unobtrusive electric contact which on turning the tap caused a mark to be made on the moving chart of a pen recorder. During the progress of the study, discussions were held with members of staff and spot visual observations made of the use of the basins.

The arrangement of two of the four lavatories included in the test are illustrated in Plates 1 and 2; these two (one for men and one for women) were provided with spray taps in place of the usual pillar taps to all wash-basins save one which remained 'normal'. Plugs were removed from the wash-basins provided with spray taps. The 'normal' basin was retained for any staff who wished to have a source of cold water at a temperature different from that provided by the sprays. This basin was also provided with a plug to enable the basin to be filled if desired. The two remaining lavatories (not illustrated) were kept 'normal' with their conventional fittings, and served as controls during the experiment. The spray taps were fed through a

thermostatic mixing valve with blended water at around 105° F., and they were set to give a maximum flow of four to five pints per minute. Water meters were fitted to both hot and cold water supply pipes in these lavatories.

In the results set out below reference is made to numbers of times taps are used. In order to interpret the automatic recordings on the usage charts the convention was adopted that one use was to be defined as an occasion when either or both taps on the same basin had been operated within a period of 2½ minutes. From a knowledge of the volume of water used it is then possible to deduce the average consumption of water per use and, from a knowledge

of the number of staff, to determine the average consumption per head and the average number of uses per head. The purpose of each use, i.e. whether for ablution or other types of washing, cannot, of course, strictly be obtained by chart observation. Some relevant information was, however, derived from staff inquiries, from spot visual observations and from a study of the variation of usage frequency throughout the day.

Consumption of hot and cold water

(a) **Normal lavatories.** A statistical examination of the recorded data for the consumption of hot and cold water in the two normal instrumented lavatories throughout

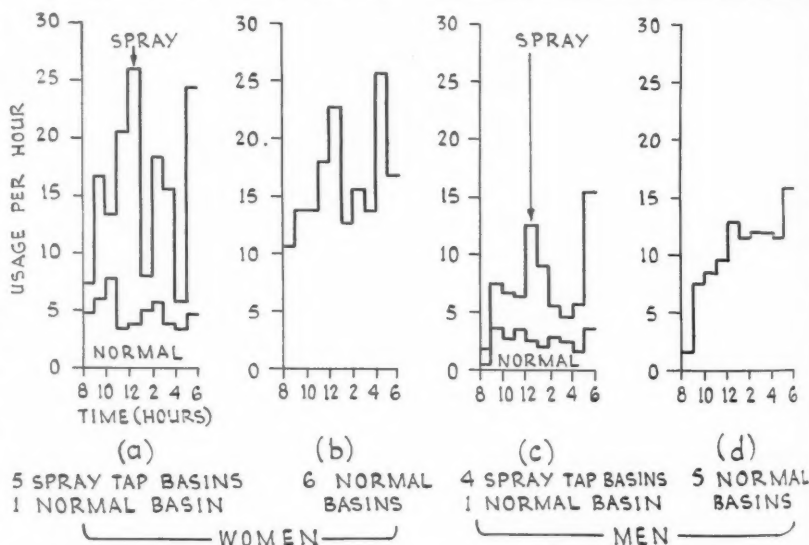


Fig 1: Women's and men's instrumented lavatories. Number of times used per hour during a typical day

¹ Crown Copyright Reserved.
² R.I.B.A. JOURNAL, July 1956.

one year shows that there was no systematic variation in the total consumption of water; there was merely a random variation about a mean of approximately 14 gallons per head per week for men and 30 gallons per head per week for women. This is in close agreement with the total consumption for the whole building of about 15 gallons for men and 31 gallons for women. There was, however, a systematic variation in the relative amounts of hot and cold water used when the average weekly external temperature was above 50° F., the relative amount of cold water used increasing with increasing external temperature. Below about 50° F. winter conditions and central heating were operating and room temperatures were constant; above this temperature, in the absence of central heating, room temperatures responded to external temperatures.

A study of the user charts from the two normal lavatories showed the average number of the uses per head per day to be three to four for women at about 1.5 gallons each use and two to three for men at about 1 gallon each use. These figures represent the consumption of water at the basins for both ablution and other personal purposes, e.g. making tea and washing crockery. Since most of this secondary washing was done by women it can be said that, for ablution, the average water consumption per head will be less than that stated above, and the differences in consumption between men and women will be less pronounced. However, in the absence of canteen or corresponding facilities, it would seem advisable to assume the consumptions stated. From the staff inquiries and spot observations it would seem that face washing is more frequent with men than women and that men, possibly on this account, are more likely to use the basin plug.

(b) **Spray lavatories.** The two spray lavatories, as will be remembered, each had one normal basin. The results show that the consumption in gallons per usage for these normal basins was rather over one for men and one and a half for women, while the corresponding consumption in the spray tap basin was about one-third for both men and women—the heavier consumption in the normal basins for women compared with men is consistent with that found for the fully normal lavatories.

For one three-week period during the experiment the normal basin was disconnected in the spray lavatories, leaving only spray taps available to the users. The result was an increase in the consumption per use in the spray basin to about half a gallon for men and two-thirds of a gallon for women.

The variation of frequency of use

Fig. 1 shows in histogram form the frequency of use in hourly periods throughout a typical day in the instrumented lavatories. The numbers of staff using each lavatory were not identical, but for the purpose of comparison the histograms have

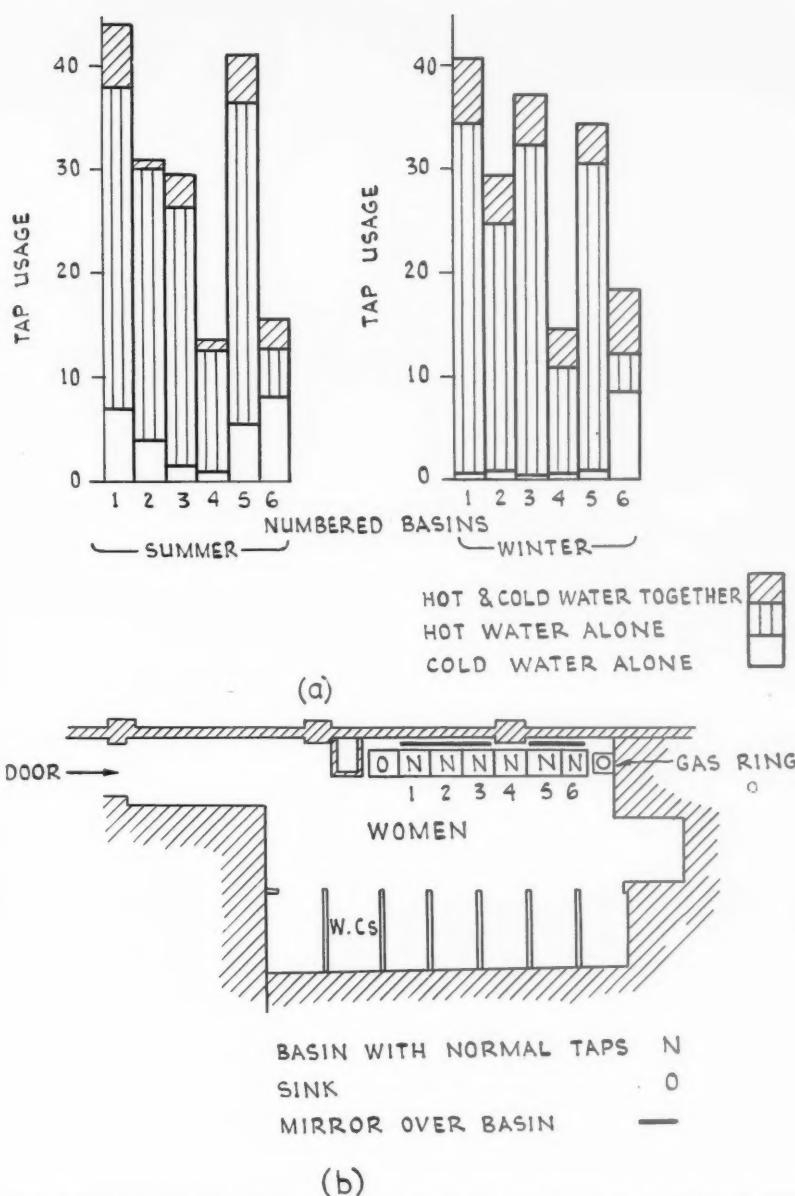


Fig 2: Women's normal lavatory. (a) Average tap usage per day at each basin, (b) Plan of lavatory

been adjusted for an average of fifty staff per lavatory, which was, in fact, the average for lavatories throughout the building. Care needs to be exercised when interpreting these histograms since conclusions depend not only on the arbitrary convention adopted for the definition of a single usage but also on the way in which different people use taps. However, certain general behaviour characteristics can be deduced. For example, in Fig. 1a (women's spray lavatory) the upper histogram, which refers to the spray basins only, shows four main peak periods which can reasonably be ascribed to ablution, viz. between 9 a.m. to 10 a.m., noon to 1 p.m., 2 p.m. to 3 p.m.,

5 p.m. to 6 p.m. In contrast, the lower histogram for the single normal basin reveals a different pattern of behaviour which inquiries and observation suggest are in part due to purposes other than ablution only.

In Fig. 1b (women's normal lavatory) two outstanding peaks are again seen at the end of the morning and at the end of the afternoon.

In Fig. 1c (men's spray lavatory) neither of the two histograms has so definite a pattern as for the women (Fig. 1a). In the upper histogram, however, there is moderate activity between 9 a.m. and 10 a.m. with the two expected peak periods at the end

of the morning and at the end of the afternoon.

In Fig. 1d (men's normal lavatory) the peak periods can again be seen at the end of the morning and at the end of the afternoon.

It will be seen from the figures that the highest frequency of use in the women's normal lavatory with six wash-basins is about 25-30 usages per hour, an average of about five usages per basin per hour. Closer analysis shows that in these peak periods usages generally occur within a smaller period of time, about 15 minutes, indicating a use density of about three minutes per use at the peak. This is a matter of importance when considering the basin accommodation ratio (basins to staff).

On the average, in the building studied, six wash-basins were used by 50 women, the peak density of use being as indicated above. The British Standard Code of Practice CP 3, Chapter VII, 1950, recommends six wash-basins for 78-100 women staff which according to the foregoing record is equivalent to a maximum peak use density of 1½ minutes per usage. Direct observation shows that the time for washing in a normal basin varies considerably, but 1½ minutes is frequent and trials suggest that this is a reasonable time for an ordinary wash, including filling and emptying the basin. The general evidence thus supports the British Standard Code of Practice recommendations for normal lavatories for women; a corresponding examination of the information obtained in the men's lavatory supports that for men. In the lavatories fitted with spray taps the washing period in running water for most people is considerably shorter, e.g. less than a minute. This suggests that for lavatories provided with spray tap installations the basin accommodation ratio might be reduced. Thus, in suites where five basins have normally been provided, four might well suffice if spray installations are used.

The relative frequency of use of hot and cold water taps in normal basins

The patterns of use of the hot and cold water taps are also interesting. These patterns are shown in Fig. 2 for winter and summer in the instrumented normal lavatory for women. With the exception of No. 6 basin the amount of cold water used is considerably greater in summer than in winter although the total amount of hot and cold water for the year is about the same as mentioned earlier in the paper. The greater use of the cold water tap in No. 6 basin is explained by its use for secondary purposes (a gas ring used for boiling water was adjacent to this basin). It will also be noted that a considerable volume of hot water was used alone; there seemed to be little tendency to mix cold water with hot water as supplied. This may in part be due to a considerable temperature tolerance on the part of the user and in part to the fact that, except at peak periods, the hot water cooling in the draw-off pipes along with the cooling which takes place while filling the basin probably

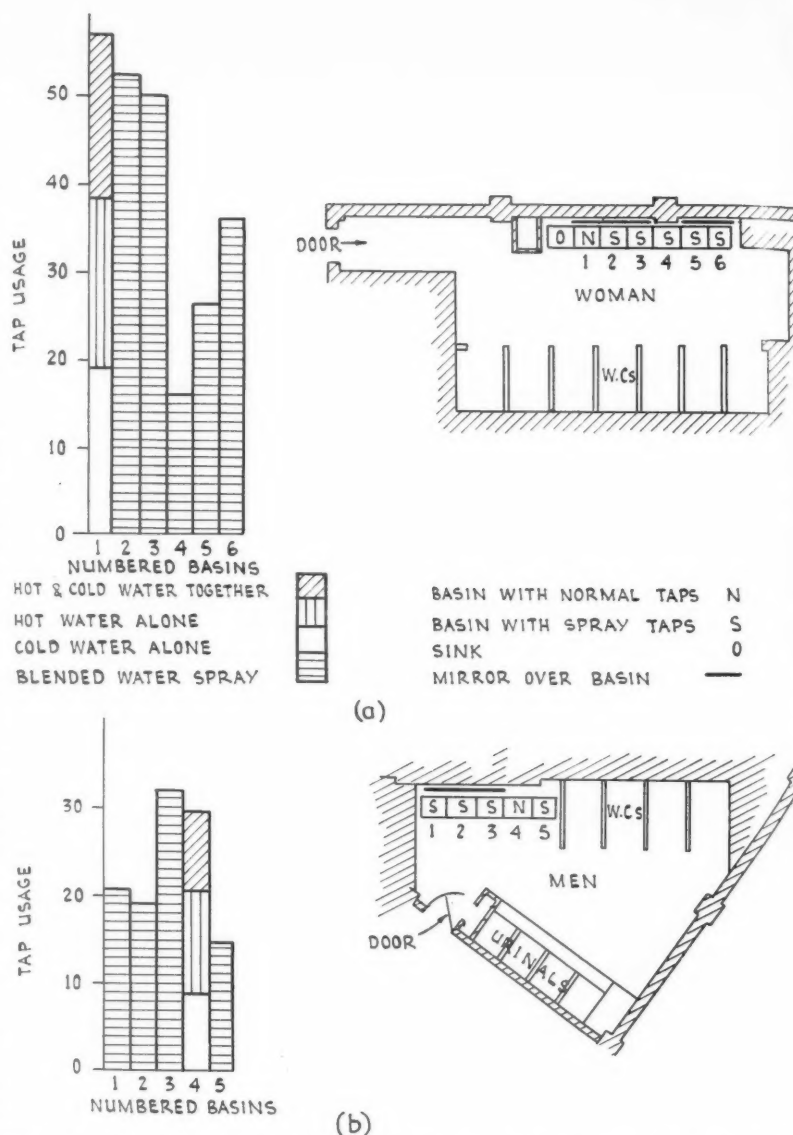


Fig 3: Spray Lavatories. Average tap usage per day at each basin. (a) Women's Lavatory, (b) Men's Lavatory

reduced the main supply temperature of 140° F. to a more acceptable washing temperature. This is borne out by the records which show that cold water was used for mixing more often at peak periods.

Fig. 3 shows the patterns for men and women in the two spray lavatories over a common period of time. As already stated, in each of these lavatories there was a normal basin, No. 1 basin in the women's lavatory and No. 4 basin in the men's lavatory. The requirement for a supply of cold water in each lavatory is clearly demonstrated; part of this need is for secondary purposes. An alternative method of providing a supply of cold water in spray lavatories could, however, be the provision of a form of spray tap which allows the

temperature of the water at the basin to be varied at the will of the user and a reference to one such spray tap was made in the earlier paper.

A comparison between the frequencies of use in the normal and spray lavatories both for men and women (Figs. 2, 3 and 4) suggests that the introduction of spray tap installations is likely to lead to increased washing; this is supported by the results of the interviews with staff from which it would also seem that the increase is mainly due to hand washing. It is probable that a quick rinse under a spray is in general more acceptable than under running water from the normal pillar taps, especially as the water temperature is uncertain: the use of both hot and cold water taps with basin

and plug would be too laborious for a rinse. It is encouraging to note that in spite of this improvement in hygienic practice, the water meter records showed, as described in the earlier paper, savings in total water consumption of the order of 50 per cent.

The relative use of different basins

It was found that all wash-basins were not equally popular, factors appearing to increase popularity in this experiment being the presence of mirrors above the basins, access from the door and distance from walls. Thus, referring to Fig. 2, the relatively smaller use of No. 4 basin can reasonably be ascribed to the absence of a mirror over that basin; this is supported by a similar state of affairs in the women's spray lavatory (see Fig. 3a). No. 6 basin in the women's normal lavatories (Fig. 2) is also not popular presumably due to its nearness to a gas ring and a wall. In contrast, in the corresponding spray lavatory (Fig. 3a), the wall near No. 6 basin is differently shaped and the relative popularity of this basin has increased. In the women's normal and spray lavatories (Figs. 2 and 3a) No. 1 basin, as might be expected, is most used; it is nearest the door. Referring to Fig. 3b in the case of the men's spray lavatory the relatively high popularity for No. 3 basin is due to its more direct access to the door, the presence of a mirror and its distance from the walls. In contrast, No. 5 basin is least popular; it has no mirror and is near the wall. No. 1 basin is more popular; although near a wall, it has a mirror. It might be mentioned that in the corresponding men's normal lavatory (Fig. 4) with a smaller number of staff where choice was easier, basins Nos. 1 and 5 were even less used.

Although the above results clearly indicate that mirrors are appreciated, it does not follow that their best position is over basins. Indeed, there is much to be said for

placing them elsewhere in the lavatory. The presence of a mirror over a basin tends to encourage some members of staff to stay longer at the basin than simple washing justifies, thereby denying their use to others, increasing the average time per usage, and affecting adversely the basin accommodation ratio.

General conclusions

The results described in this and an earlier paper strongly support the use of such installations in offices and large institutions. Spray installations should lead to considerable economies in water, fuel and plumbing. They would also seem to permit a reduction in the number of basins normally provided for large lavatories, with a corresponding saving in cost and space. If a blended water supply is provided, i.e. if control of temperature is not left to the user, there should be some provision for cold water for ablution in offices. There is, however, much to be said for providing adult groups with a type of spray installation which permits control of temperature by the user, e.g. such as indicated in the earlier paper.

With reference to layout and amenities, easy approach from the door and clearance from side walls is appreciated. Mirrors in lavatories are necessary and if fixed over basins they should preferably be fixed over all basins. However, there is perhaps a stronger case for fixing mirrors away from the basins on grounds of cleanliness and reduction in time spent at the basins.

Acknowledgements. We acknowledge the generous help given by the Chief Sanitary Engineer and staff of the Ministry of Works. We are also grateful to Mrs. C. M. Chapman who was responsible for the staff interviews.

The work was carried out as part of the research programme of the Building Research Board of the Department of Scientific and Industrial Research, and is published by permission of the Director of Building Research.

Ministry of Education Bulletin

Cost Study No. 4

RECENTLY the Ministry of Education published a second edition of their Building Bulletin, originally published in March 1951.

In the six years between the editions, professional opinion has been expressed by those both well-informed and ill-informed upon the twin subjects of cost analysis and cost planning.

This second edition, once again, defines not only the objectives of the twin techniques but also many of the terms, factors and methods used in their execution. Without a doubt much of the interchange of opinion on the basic factors would have been avoided had the disputants read and absorbed the information contained in Bulletin No. 4. This is a concise report, set out with a logicity befitting the Ministry which both originated and established this rational approach to building costs for the architect.

The value of the second edition will be equal both to the architect and quantity surveyor well-informed on cost planning matters, and to the practitioner about to commence on an initial exercise with these techniques, for the Appendices give lucid case histories of actual examples which have been carried out by the Ministry in conjunction with various county architects.

The variety of structural systems, plan forms, areas and cubes shown give a fairly wide cross-section of building in general, admittedly having a common purpose—education. This in itself provides evidence to dispute criticism that cost information arising from one building is of little use in guiding the architect's design decisions on another.

Between 1951–56 the average cost per square foot of school building increased from 59s. to only 68s., a rise of 15 per cent, whilst over the same period general building costs rose by about 30 per cent. The difference is so marked that it can hardly be coincidence that this was the only programme of building carried out under the techniques of cost analysis and cost planning. However crude the original Cost Handbook, its success is proved by these figures.

The second edition—by the provision of case histories and detailed analyses, which can be used as a guide for future work—must therefore be considered as a more precise tool for the management of building contracts by architects, or for that matter, by all members of the building team. Since this is the only Handbook on costs that is available a copy should be on the shelf of every architect who is concerned with cost, and can that exclude any member of this Institute?

R. BADEN HELLARD [4]

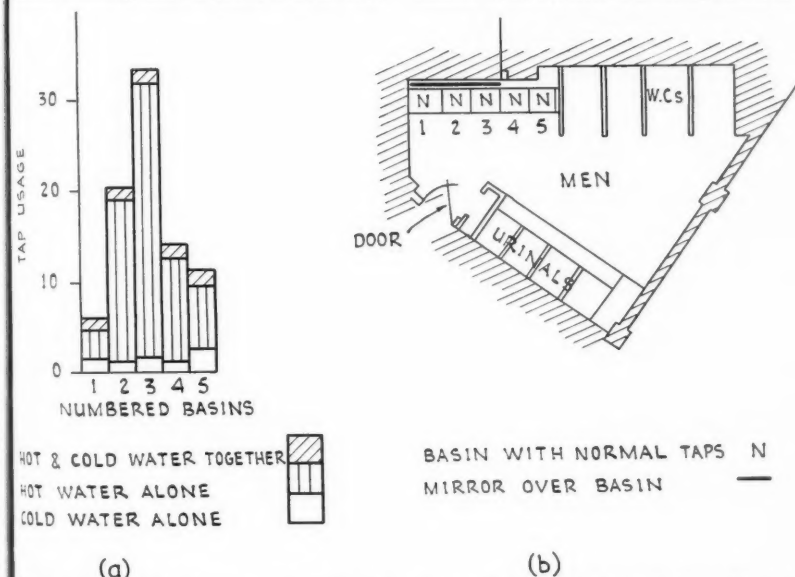


Fig 4: Men's normal lavatory. (a) Average tap usage per day at each basin, (b) Plan of lavatory

Review of Construction and Materials

This section gives technical and general information. The following bodies deal with specialised branches of research and will willingly answer inquiries.

The Director, The Building Research Station, Garston, near Watford, Herts.

Telephone: Gartson 4040.

The Officer-in-charge, The Building Research Station Scottish Laboratory, Thorntonhall, near Glasgow.

Telephone: Busby 1171.

The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks.

Telephone: Princes Risborough 101.

The Director, The British Standards Institution, 2 Park Street, London, W.1.

Telephone: Mayfair 9000.

The Director, The Building Centre, 26 Store Street, Tottenham Court Road, London, W.C.1.

Telephone: Museum 5400 (10 lines).

The Director, The Scottish Building Centre, 425-7 Sauchiehall Street, Glasgow, C.2.

Telephone: Douglas 0372.

The Bristol Building Centre. In the October 1956 issue of the JOURNAL, page 509, it was announced that a pilot scheme had been held during July and part of August of that year to find out what the response would be to the proposal of forming a permanent Building Centre in Bristol, similar to the Building Centre in London. It has now been decided to set up the Centre in Bristol this October, in a permanent building in the centre of the city. In addition to the information service there will be a demonstration lecture room and also a lounge where architects may meet clients and others.

The Centre will be financed solely by the rentals charged to the exhibitors, and it will serve as the regional centre for the south-west of England and for South Wales.

The U.A.M. Group Advisory Service. At a recent Press conference the inauguration of this advisory service was announced and explained by the managing director of the Group, Mr. Desmond Kirkness. The A in the title U.A.M. stands for *asbestos*, and the U for *universal*, and indeed asbestos in one form or another is universally known and used, especially in the form of flat or corrugated asbestos cement sheeting. But the Group feel that the potentialities of the material have not been fully exploited, and therefore they have set up an advisory service to 'assist in the provision of buildings that are efficient in use, economical in cost and maintenance and pleasing in appearance. It will also keep in close touch with developing trends, so that full use may be made of the architectural potentialities and other qualities of asbestos cement and the associated products of the Group. Thus the U.A.M. Group, through the advisory service, will be constantly preparing to meet future building needs before they arise.'

The Group wish to keep in step with modern architectural thought in the way of product design and presentation, and therefore they have retained the services of Mr. Edward D. Mills [F] as consultant architect.

In addressing the Press conference Mr. Mills said that he felt one of his functions should be to act in a liaison manner to pass

on to the Group what architects really want and thus to assist in bridging the gap between user and manufacturer. He would also advise on the literature sent out by the Group and would exert himself to improve the detailing of the material.

The advisory service is available to everyone connected with the building industry and will be prepared to assist in estimating, taking off quantities, and producing layout drawings. Inquiries should be addressed to the Group at Tolpits, Watford, Herts.

S.P.A.B. In 1951 the Society for the Protection of Ancient Buildings instituted a special course with the object of providing architects and surveyors interested in and responsible for old buildings to obtain knowledge of its principles and methods of repair, so that not only should traditional constructional methods be understood but also the principles underlying the sympathetic and conservative treatment of old buildings, whether ecclesiastical or secular.

This specialised course has been held annually since its inception, and this year it will be held from Monday 21 October to Saturday 26 October. Those interested should apply for details to the Secretary, S.P.A.B., 55 Great Ormond Street, London, W.C.1.

Brick Information Sheets. The National Federation of Clay Industries have issued twelve brick information sheets, commendably conforming in size to B.S.1311: 1955. The sheets comprise drawings of variously shaped bricks with diagrams of bonding; diagrams of English, Flemish, Sussex, Monk, English garden wall, stretcher and header bonds; diagrams of regulation wall thicknesses according to height, with methods of calculation; thermal transmittance values, and notes on mortars and jointing. On the backs of the sheets are printed brick data on weight, strength, thermal and sound insulation, frost resistance, moisture movement, fire resistance, and references to relevant British Standards, Codes of Practice and B.R.S. digests.

The sheets are available to all interested parties, free of charge, on application to the N.F.C.I. at Drayton House, 30 Gordon Street, London, W.C.1.

Cuprinol Special Duty Insecticide. The common (all too common) furniture or woodworm beetle was so called because it was most usually seen in furniture but now, unfortunately, it might equally well be called the rafter-joist-and-floorboard beetle. Sufferers from its ravages will probably give it another name than its official one of *Anobium Punctatum*.

In view of the damage that can be done by the beetle to structural timbers, Messrs. Cuprinol Ltd. have now produced a special duty woodworm insecticide, specially formulated for the treatment of structural timbers. In addition to its destructive ingredients it contains a long-lasting preservative which should prevent reinfestation of the treated timbers. It must not be used on polished woodwork, a position in which the standard Cuprinol woodworm insecticide should be used.

Messrs. Cuprinol's address is Terminal House, Grosvenor Gardens, London, S.W.1.

B.S. Handbook No. 9, 1957. Domestic and Non-Industrial Electrical Installations and Appliances. This revised handbook includes not only revisions of existing electrical standards but also many new ones; it now contains almost twice as many summaries as the 1949 edition and is intended to form a companion volume to the Regulations for the Electrical Equipment of Buildings issued by the Institution of Electrical Engineers.

It is hoped that these summaries will enable architects, consultants and others concerned with electrical installations to select standard sizes and that they will be sufficient to indicate the types and quality established by the British Standards. Price 25s.

B.S.I. Annual Report 1956-7. The British Standards Institution have issued their annual report, covering the period from 1 April 1956 to 31 March 1957. Current Standards and Codes of Practice now number over 3,000, the number published was 287, and sales of Standards exceeded 1,000,000 copies.

The need has been felt to promote a wider interest in the three Ss—Standardisation, Simplification and Specialisation, and the benefits they offer to industry, and to this end meetings and training courses for Standards officers have been held and booklets have been published.

In the portion of the report dealing with the Building Division it is noted that there is a growing demand for asbestos cement cisterns for domestic cold-water storage, and B.S. 2777 provides for nine sizes of rectangular cisterns and includes quality tests. In connection with a glossary covering terms used in the building and associated industries, B.S. 2787 contains some 700 terms and definitions relating to the design, constituent materials, mixing, placing and testing of concrete and reinforced concrete. Work has started on a similar glossary of sanitation terms. The cost of the report is 7s. 6d.

The Re-decoration of Ancient Churches. The Central Council for the Care of Churches have published a number of pamphlets on the care of churches, of which No. VIII bears the title given at the head of this note. The pamphlet recommends the use of limewash for the re-decoration of ancient churches, a course that is urged by competent architects and the advisory committees not because 'it is Olde Worlde or Arty-Crafty, or some equally foolish reason. On the contrary, they urge its use on the most pedestrian, utilitarian, practical grounds'.

The pamphlet states that every ancient building, having no damp course in its walls, inevitably holds in them a certain amount of damp, varying with the season of the year. All distempers and wall paints have certain disadvantages, but 'limewash is porous, the damp can evaporate through it without dislodging it; moreover it is absorbent, and will help to preserve a damp wall, while it remains white and fair for many years longer than will a distempered wall'. It will also save many pounds in prime cost in a building of average size.

The pamphlet may be obtained from the Church Information Board, Church House, Dean's Yard, London, S.W.1, price 6d., or 8d. by post.

Jablite. At the British Plastics Exhibition there was on display a new structural expanded polystyrene insulation material, called Jablite. It is supplied in panels 7 ft. by 3 ft., 5 ft. by 2 ft. 6 in., 4 ft. by 2 ft. and 3 ft. by 1 ft., all in thicknesses up to 10 in. It weighs 1½ lb. per cu. ft. At the ½ in. thickness the weight is 0.83 oz. per sq. ft. It is claimed to be non-inflammable, moisture resistant, sound absorbent, rot and vermin proof, and having a K factor of 0.20. By means of Jablin adhesives it can be stuck to various surfaces, such as concrete, plasterboard, brick, metal, etc.

Suggested positions where it can be used include under roof tile battens, under roofing felt or asphalt and on top of the r.c. roofing. It is stated that Jablite will take sand/cement screed applied direct and all types of plaster, and by means of bitumen-type adhesives it can be attached to corrugated and sheeted structures. For fuller information application should be made to Jablo Plastics Industries Ltd., Jablo Works, Waddon, Croydon, Surrey.

Men of the Stones. Those who appreciate stone as a building material may usefully be reminded of the existence of the 'Men of the Stones' society, formed in 1947 to weld together and harness the support and goodwill of the many, outside the trade, who are admirers of well-designed and executed stone buildings. As the membership includes those who are highly qualified or endowed with specialised knowledge, skill or experience, the society is able to provide information and answer queries, which have come from 'students to architects high in their profession', and from authors, publishers and lecturers. Among other things, information can be given on economical methods of using

stone and the selection for special purposes, preparation of specification drafts, identification of stones, names of working quarries, and names of consultants who specialise in stone, of sculptors, quarries, masonry works and masonry builders in most areas.

Inquiries should be addressed to Mr. A. Spencer Ireson, 4 Barn Hill, Stamford, Lincolnshire.

Rocksil Building Products. Under this title Cape Building Products Ltd., the newly-formed subsidiary of the Cape Asbestos Company Ltd., have recently issued a leaflet on the eight Rocksil products they market for the building industry. Photographs show these products and against each are printed technical details and descriptions, including standard sizes, nominal thickness, approximate density, thermal conductivity, application and comments. The eight varieties are: infill, sewn quilt, building mat, plain quilt, slabs, scrim quilt, sewn bandage and loose wool.

The address of Cape Building Products is Cowley Bridge Works, Uxbridge, Middlesex.

Cracking at Plasterboard Joints. The National Federation of Building Trades Employers announce that a joint committee composed of representatives of the National Federation of Plastering Contractors, the Building Research Station, and technical representatives from the manufacturers have expressed the unanimous opinion that cracking and failures at the joints of plasterboard are mainly due to structural movements which, under certain conditions, arise subsequent to the completion of the plastering. Such movements mainly involve the deflection, expansion or contraction of timber, sometimes combined with the fact that too great a distance has been left between joists. It is considered that the risk of cracking could be greatly diminished by the application of two coats of plaster in preference to the one coat generally applied as a measure of economy.

Tygascrium Reinforcing Fabric. This new fabric is designed for use as a reinforcing membrane for the coal tar and asphalt compounds used in waterproofing and anti-corrosion applications. It is woven from glass yarns and is coated to ensure maximum compatibility with coating compounds. It is claimed that the principal advantages of Tygascrium are that it does not rot or decay and that—due to the non-wicking properties of the glass filaments—it neither carries moisture into the waterproofing compound nor conducts vaporisable oils to the surface, thus preventing drying out of the compound. As the base fabric can withstand temperatures up to 1,000 degrees F., coating compounds can be applied at normal temperatures without risk of degradation. The material weighs 2.2 oz. per sq. yd.

There are two types of fabric; one being coated with a balanced asphalt-resin combination for use with both coal tar and asphalt base compounds; the other has a

coal tar binder for use with coal tar and epoxy-coal tar compounds. Both types have a pick-up factor of approximately 424 per cent. ('Percentage pick-up is defined as the amount of bitumen the Tygascrium would hold under certain specified conditions.')

Suggested applications of the material include its use for reinforcing the compounds applied to roofs, parapet walls, chimneys, wall flashings, bridges, cellars, tunnels and sewers, retaining and foundation walls, and floor slabs. It is also appropriate for underground pipes, joints and fittings, and on the interior of oil storage tanks.

Tygascrium is produced by Messrs. Fothergill and Harvey (Sales) Ltd., Harvester House, Peter Street, Manchester 2.

The New Rayburn Boiler No. 2. Messrs. Allied Ironfounders Ltd. have introduced a new boiler, No. 2, specially designed for the needs of the small house in the way of domestic hot water, but it is not intended to serve a central heating installation. The boiler is thermostatically controlled, it has a rotating grate for riddling and a large ashpan with a special handle. The casing is of white or cream smooth vitreous enamel. This boiler could hardly be simpler or cleaner in its design. The present price is approximately £27. The London address of Messrs. Allied Ironfounders Ltd. is 28 Brook Street, W.1.

British Standards Recently Published

B.S. 2879: 1957. Draining taps (screw-down pattern). At the request of the Institute of Plumbers, this Standard has been produced specifying design, materials, dimensions and tests for screw-down, loose key operated taps used for draining hot or cold water-heating systems, the sizes concerned being ½ in., ¾ in. and 1 in. nominal size non-ferrous taps. Price 2s. 6d.

B.S. 1165: 1957. Clinker aggregates for plain and pre-cast concrete. This British Standard has been revised in the light of present-day difficulties in the supply of clinker. The Standard is limited to composition and soundness of clinker aggregates, as it is still considered that no specification of grading requirements of general applicability can usefully be included, bearing in mind the conditions of production and use of this type of aggregate and the common practice of users to grade and crush oversize material after delivery on the site.

This revised Standard provides for three classes of clinker aggregate, namely A1, A2, and B. The main classification A now covers all clinker suitable for plain concrete for general purposes and for *in situ* concrete for interior work not exposed to damp conditions. The new Class B clinker, with a new maximum combustible content of 25 per cent, covers the aggregate for all clinker concrete blocks. Price 3s.

The R.I.B.A. representative on the drafting committee was Mr. Frank H. Heaven [4].

Practice Notes

Edited by Charles Woodward [A]

MINISTRY OF HOUSING AND LOCAL GOVERNMENT. Housing Act, 1957. The Minister of Housing and Local Government has addressed to Housing Authorities in England and Wales Circular No. 46/57, which deals with the Housing Act, 1957, which came into operation on 1 September.

The Circular states:

The Act repeals and re-enacts in consolidated form the provisions of the earlier Housing Acts, with the exception of financial provisions which will be consolidated in a separate Bill next Session.

The Housing Act, 1957, is divided into eight parts which follow generally the arrangement of the Act of 1936 with the necessary modification and expansion. There are also eleven schedules to the Act in which there are changes in arrangement, the most important of which is that the provisions relating to the compulsory purchase of land under Parts II, III and V of the Act which were contained in the First Schedule to the Act of 1936 are reproduced separately in the First, Third and Seventh Schedules respectively.

I am to draw your attention to section 191, a comprehensive saving provision which secures continuity of action by enacting, *inter alia*, that anything done under a repealed enactment shall have effect as if done under the corresponding provision of the new Act and that documents referring to a repealed enactment shall be construed as referring to the corresponding provision of the new Act. Thus the existing forms of notices and orders which were prescribed under the Act of 1936, as amended, will continue to be available for use until new forms have been prescribed.

It is the intention to prescribe new forms in the terms of the Act of 1957 for use in connection with proceedings commenced after they are available. It is hoped that the Regulations prescribing these forms will be made and issued at an early date. The Regulations will of course be placed on sale in the usual way by H.M. Stationery Office, and local authorities will no doubt obtain such forms as they require from their normal sources of supply.

To assist the operation of the housing code in its consolidated form, Tables of Comparison are being prepared, showing where in the Act of 1957 each of the existing provisions is to be found reproduced and also the source from which each of the new provisions has been taken. The Tables of Comparison will be placed on sale, and copies will be obtainable in the usual way through the Stationery Office or from the authority's normal suppliers of Stationery Office publications.

Circular 45/57 addressed to Housing Authorities in England and Wales is as follows:—

Improvement Grants

I am directed by the Minister of Housing and Local Government to say that in consequence of the repeal of Section 22 of the Housing Act, 1949, a new form of approval of applications for grant has been devised. A copy of the form, to replace that issued with Circular No. 4/55 and Circular No. 55/54, is appended to this Circular.

Appendix. Housing Act, 1949, Housing Repairs and Rents Act, 1954, Rent Act, 1957. Approval of Application for Improvement Grant

The council have approved your application dated for an improvement grant and have approved £ as being the amount of the expenses which, in their opinion, are properly ascribable for purposes of grant to the execution of the improvement works and have approved the proportions of the amount set out below as being attributable to each dwelling proposed to be provided or improved:—

Brief Description of Dwelling	Approved Proportion
1.
2.
3.
4.

Subject to the conditions stated in Section 23 of the Housing Act, 1949, as amended by the Housing Repairs and Rents Act, 1954, and the Rent Act, 1957, the effect of which is set out below, the Council have decided to pay you an improvement grant of £ in respect of the expenses to be incurred in carrying out to the satisfaction of the Council the improvement works to the house(s) building(s) known as

..... in accordance with the particulars, plans and specifications approved by the Council for that purpose. Dated this day of 19.....

(Signature of authorised Officer)

Conditions

(To be observed for a period of years from the date on which a dwelling(s) first becomes fit for occupation after the completion of the works.)

1. The dwelling(s) shall not be used for purposes other than those of a private dwelling house, except with the consent in writing of the Council and then only for such further purposes and to such extent as may be mentioned in that consent.

2. The rent payable by the occupier(s) of the dwelling(s) shall not exceed the rent limit under the Rent Act, 1957.

3. The dwelling(s) shall, at all times when not occupied by the applicant for the improvement grant or a member of his family or a person who on his death has become beneficially entitled to his interest in the dwelling or to an interest in that

interest or the proceeds of sale thereof, be let or be kept available for letting at a rent not exceeding the rent limit referred to in condition 2 above. This condition does not preclude the occupation of the/a dwelling by a member of the agricultural population in pursuance of a contract of service.

4. All reasonable steps shall be taken to secure the maintenance of the dwelling(s) so as to be fit for human habitation.

5. The owner of the dwelling(s) shall, on being required to do so by the Council, certify that the conditions specified in the foregoing paragraphs are being observed with respect to the dwelling(s). Any tenant of the dwelling(s) must, on being so required in writing by the owner, furnish to him such information as he may reasonably require for the purpose of enabling him to comply with this condition.

6. If a tenant assigns or otherwise parts with the possession of the/a dwelling, it is not lawful for any person in consideration thereof to make any payment other than rent or for the tenant to receive, directly or indirectly, any such payment.

7. If the dwelling(s) (or any of them) is for the time being occupied in pursuance of a contract of service by a member of the agricultural population, and if the contract is determined:

- (a) by less than four weeks' notice given by the employer;
- (b) by dismissal of the employee without notice; or
- (c) by the death of either party,

then in such case the employer or his personal representative must permit the employee (or in the case of his death, any person residing with him at his death), to continue to occupy the dwelling free of charge from the determination of the contract until the expiration of a period of four weeks beginning with the date on which the notice was given or, if the contract was determined otherwise than by notice, with the date on which it was determined.

Notes

(These Notes are intended to give general guidance and have no legal force)

1. When an improvement grant has been made in respect of a dwelling, the rent under a controlled tenancy of the dwelling cannot exceed the rent limit under the Rent Act, 1957. This rent limit depends in each case primarily on the gross value of the dwelling but also on what are the repairing liabilities of landlord and tenant, whether rates are payable by the landlord, and whether services or furniture are provided for the tenant.

2. Even though the tenancy of the dwelling in respect of which a grant has been made is not subject to rent control, the rent cannot exceed what would be the rent limit under the Rent Act, 1957, so long as the grant conditions are in force.

3. Where an existing dwelling is improved with the aid of grant, the Rent Act, 1957, allows an addition to the annual rent of 8 per cent of the landlord's share of the cost of improvements. The 8 per cent

relates to any improvements within the scope of Section 5 of the Rent Act, 1957, and is not limited to the improvement works taken into account for the purpose of the grant.

4. Where an existing dwelling is decontrolled by the Rent Act, 1957, because its rateable value is over £40 in the Metropolitan Police District and City of London or £30 elsewhere in England and Wales, there can be no increase in rent to a sitting tenant (or his statutory successor) during the fifteen months ending on 5 October 1958 (even though improvements may have been made to the dwelling during this period) unless landlord and tenant agree on a new tenancy for a period of at least three years; but the rent under such a tenancy must not exceed the rent limit under the Rent Act, 1957.

5. Any letting of an existing dwelling to a new tenant on or after 6 July 1957 is outside control of the Rent Acts, irrespective of the rateable value of the dwelling, but so long as the grant conditions are in force the rent thereunder must not exceed the rent limit under the Rent Act, 1957.

6. Where a new dwelling is produced by conversion with the aid of grant, it is outside control of the Rent Acts, but the rent cannot exceed what would be the rent limit under the Rent Act, 1957. The rent limit for this purpose is ascertained by reference to the gross value of the new dwelling so produced. The 8 per cent addition mentioned in Note 3 does not apply unless an improvement is made subsequently.

7. Where a tenancy is not a controlled tenancy, the restriction on the amount of rent applies only so long as the grant conditions are in force.

8. If the/a dwelling is let to a person in consequence of being employed by the lessor, the operation of Section 3 of the Rent and Mortgage Restrictions (Amendment) Act, 1933 (which restricts the right of a landlord to possession of a dwelling), will not be excluded by reason of a letting being otherwise than at a rent of two-thirds or more of the rateable value of the dwelling. (Housing Act, 1949, Section 30.)

THERMAL INSULATION (INDUSTRIAL BUILDINGS) ACT, 1957. This Act received the Royal Assent on 17 July 1957, and applies to England, Wales and Scotland. It does not apply to Northern Ireland.

The Act does not apply to an industrial building or an extension the erection of which is begun before 1 January 1959, unless the Minister appoints an earlier date.

The Minister may make regulations exempting buildings or extensions, of such classes as he may specify, from the provisions of the Act, and a local authority may, with the consent of the Minister, exempt a particular building or extension if the circumstances make that expedient.

The Minister for the purposes of the Act is the Minister of Power, and he may prescribe, by regulations, a standard of insulation against loss of heat in industrial buildings and referred to as 'the prescribed standard'.

If plans deposited with a local authority confirm to 'the prescribed standard' they must pass the plans, but if the plans do not so conform they must reject the plans. The local authority must give notice to the person depositing the plans whether or not they are passed. The notice must be given within one month of the deposit of the plans. This period is extended to five weeks where a local authority outside the L.C.C. area do not meet more than once a month unless the plans are deposited more than three clear days before a meeting of the authority. The Minister may make regulations restricting the use of materials to the 'prescribed standard', where the constructional use of the materials does not conform to the required resistance to the spread of fire. A local authority must then reject the plans unless the plans show that the materials will be used in such a way as not to increase the risk of fire breaking out or spreading in the building. The regulations will refer to such materials as 'restricted materials'.

If an industrial building is erected and does not conform to the 'prescribed standard', the local authority may require the owner to pull down or remove it, or the owner may make such alterations in the constructional use of materials as will not increase the risk of fire breaking out or spreading.

If the owner does not comply with the local authority's requirement, under the previous paragraph, within 28 days or such longer period as a magistrates' court may allow, the local authority may pull down or remove the building or make such alterations in the building as they think necessary. The reasonable expenses of the local authority are recoverable from the owner. The local authority cannot give a notice after the expiration of twelve months from the date of the completion of the building and they cannot give such a notice if either the plans were passed or notice of the rejection of the plans was not given within the relevant period and if the building has been erected in accordance with the plans.

Any question arising between a local authority and a person proposing to erect an industrial building as to conformity with the 'prescribed standard' or as to the use of 'restricted materials' or whether the building has been erected in accordance with the plans as passed by the local authority, may, on an application by that person, be referred to the Minister, whose decision is final, subject to any point of law stated in the form of a special case for the opinion of the High Court.

Regulations made by the Minister are subject to annulment by a resolution of either House of Parliament.

'Industrial building' means a building which is, or forms part of, a factory within the meaning of the Factories Acts, 1937 and 1948.

'Plans' includes specifications.

'Owner' has the same meaning as in the Public Health Act, 1936, Section 343.

'Local Authority' means in England and Wales (except the county of London) the council of a borough or urban or rural

district and as regards London the London County Council. 'Local Authority' in Scotland means in a burgh the town council, and in the landward area of a county the county council.

'Owner' in Scotland has the same meaning as in the Public Health (Scotland) Act, 1897.

HEATING, VENTILATING AND DOMESTIC ENGINEERS. Building Wages. The Joint Conciliation Committee of the Heating, Ventilating and Domestic Engineering Industry have announced that an increase in wages of 2d. per hour has been awarded to craftsmen and mates covered by the National Agreement. This award is back-dated to Monday, 29 April, 1957.

The new hourly rates are as follows:—

Craftsmen, London, 4s. 8½d.

Adult males, London, 18–20 years of age, 3s. 10½d., and over 20 years of age 4s. 1½d.

All other districts in Great Britain:—

Craftsmen, 4s. 7½d.

Males, 18–20 years of age 3s. 9½d., and over 20 years of age 4s. 0½d.

ELECTRICITY SUPPLY AND PURCHASE OF PROPERTY. The London Electricity Board draw attention to the provisions of the Electricity Act, 1947, and to the Board's obligation to standardise systems of supply in their area. A gradual change-over is made, where necessary, to the standard alternating current system. When premises change hands and an application for a supply is received from a new consumer, the Board state the system of supply to be afforded, and it is their practice, whenever possible, to declare the standard a.c. system. Where fixed plant or apparatus such as lifts, circulating pumps, motors, etc., are on the premises and are supplied from the direct current system, the Board offer, where possible, a supply of alternating current. If they are prepared to give a temporary direct current supply for a limited period it is on condition that the new consumer shall make the installation suitable for alternating current within a specific time and indemnify the Board in respect of any costs and charges thereby incurred. Moreover, in respect of premises on a non-standard a.c. supply, a new consumer may be required to take a standard supply and to bear any consequential expenses.

When surveying a property for a prospective purchaser a professional man, in addition to recommending a test of the electric installation, ought, perhaps, to call the attention of his client to the necessity of ascertaining from the London Electricity Board the kind of any future electrical supply before leasing or purchasing a property.

It may be that other Electricity Boards follow the same procedure.

INTERNATIONAL CIVIL ENGINEERING CONSTRUCTION CONTRACTS Agreement Reached on Standard Conditions. Agreement has been reached on the Condi-

tions of a Standard Form of Contract for works of civil engineering construction which are the subject of international tender.

The formal signing of the document, which is the culmination of two years' joint discussion and negotiation, took place in the Kongresshaus, Zürich, on 29 August, at a conference of the Federation Internationale du Bâtiment et des Travaux Publics (International Federation of Building and Public Works). The signatories were Mr. Julian S. Tritton, M.I.C.E., M.I.Mech.E., Mem.A.S.M.E., President of the Federation Internationale des Ingenieurs-Conseils (International Federation of Consulting Engineers), who made a special journey to Switzerland for the occasion, and Mr. Norman Longley, C.B.E., President of the Federation Internationale du Bâtiment et des Travaux Publics.

With vast constructional programmes in hand in nearly all countries—hydro-electric schemes, power stations using oil, coal or nuclear fission, dams, ports, harbours, tunnels, roads, railways, airports, oil refineries, pipe-lines, irrigation schemes, townships—the importance of such a standard document is immediately apparent.

An interesting feature of the conditions is a provision under which the procedure of the Court of Arbitration of the International Chamber of Commerce will be used for the settlement of any disputes that may arise.

Copies of the conditions of contract are obtainable from the Export Group for the Constructional Industries, 21 Tothill Street, London, S.W.1, and the Association of Consulting Engineers, 36 Victoria Street, London, S.W.1.

LAW CASE

What is a Window under Bye-laws? A firm of builders appealed to the Dorking Justices against a decision of the Council's Planning Committee who rejected plans for bungalows on the ground that they did not comply with one of the building bye-laws. This bye-law provided that 'every habitable room shall be provided with a window or windows which shall be so constructed that a total area not less than one-twentieth of the floor area of the room may be opened to the external air'.

The plans for the bungalows provided window space comprising (a) top hung (openable) ventlights; (b) fixed non-openable lights; and (c) glazed casement doors. The area of the openable ventlights did not comply with the bye-law requirement. The Council rejected the plans because, in their view, the casement doors were not windows within the meaning of the bye-law.

The appellants contended that a casement door is a window in the ordinary sense of the word and it satisfied the purpose of the bye-law in giving adequate light and ventilation. The Council contended that a casement door was intended primarily as a means of access rather than of ventilation. In other words, it is a door and not a window. They argued that the

word 'window' should be construed in its ordinary sense and with due regard to the purpose of the bye-law. Ventilation needs were not likely to be served by a casement door which would not be used for that purpose except in the hottest weather.

The Justices decided that the plans for window space did not contravene the bye-law and made an order that the Council should pay 20 guineas costs to the successful appellants.

The Council have decided to appeal against the decision.

Correspondence

THE CASE FOR A THEORY OF MODERN ARCHITECTURE

The Editor, R.I.B.A. Journal

SIR,—If from afar, and from a mere reading, it is permissible to comment on Mr. Summerson's paper, 'The Case for a Theory of Modern Architecture' (R.I.B.A. JOURNAL, June 1957), it may be in order to comment rather freely. I should, for instance, begin by observing that the whole paper rests, or seems to rest, upon a grave misconception: namely, that theory and practice are two distinctive activities. Mr. Summerson notes that Michelangelo made no contribution to the theory of architecture, his powerful influence notwithstanding; whereas, he should surely rather have said 'no *written* contribution', since this distinction is not insignificant. I am assuming, in other words, first, that there is a theory implicit in every action we make, the more notably as such action is in any sense original; and, secondly, that theory is essentially the concern of practising artists—who may or may not have adequate power to verbalise the principles on which in fact they act—as distinct from scholars whose concern is superficial (mere exercise of the intellect). I would even go so far as to say that the real reason for the poverty of theory in 'modern architecture'—a factor, incidentally, which limits its development to full potential—lies in a literary or scholarly intervention, which vitiates for artists a sufficiently strict approach. We search for 'meanings', instead, as we should be doing, for valid principles of what may be termed 'form', themselves obviously modified, or rather enlarged, by introduction of new materials and techniques.

Though I can scarcely approve of the language in which it is stated, which is pseudo-scientific, I am interested particularly in the third paragraph of this paper. When referring to the study of form *qua* form (architectonics), Mr. Summerson, to complete an evocative rather than a just description of method, says: '... it is a sure sign that something stupid is being attempted'. Allow me to say that it is nothing of the sort; and that, if we do seek to establish sound and sufficient theory, it is this specific approach, and none other, that we must now adopt. Style analysis, a typical 'scholar's' technique, is valid only

as it may illuminate other studies; and judgment on this must be that of others. Undoubtedly, there is much to be learnt from the findings of the historians; but this that we so learn is no more than a means to an end. History does not state vital value; it shows its broad form only in certain sets of circumstance.

Again, Mr. Summerson speaks, in a manner highly suspicious as suggesting superficiality, of 'evaluating principles philosophically', as though we should put the cart before the horse. Philosophy, which I here take to refer to generalised value study, surely comes first; though first, of course, without pretension. Principles emerge, and can only emerge, from a clear prior notion of the value or values specifically to be served; so that the *first* interest, that which is paramount and basic, is that of establishing value as specific.

Now, notwithstanding that there is patent need to give this interest the attention it so lamentably lacks, I shall resist any temptation to submit a thesis upon what I should consider a sound theory of value. Enough at once, and without debate, to concentrate on points which appear to be indisputable. It is then obvious that architecture, as a specific activity, serves not one but two distinctive values: the one utilitarian, practical or functional, answering strictly utilitarian needs (which would include 'an organic conception of architecture based upon a social idea'), and the other sensuous or formal, roughly to be called 'the gracing of environment'. It is less obvious that, although the serving of these values involves their interrelation, they cannot be clearly considered unless we think about them, first investigate that which they imply, separately. To combine two interests with any pretence of sufficiency, it is first incumbent to understand of what each may consist. And that they are not to be brought into sufficient relationship casually is evident once we understand a fundamental difference. Thus, since the reference of one, functional value, is properly particular, as broadly served in the single structure, whereas the reference of the other, formal value, is properly general, as only fully served in width of relationship—extending, ideally, to the whole of environment—we see that failure to distinguish between them (as in the positing of one principle for both) can only lead to a form of confusion, such as is now evident. Doubtless we need a principle to relate them, but that can only come from a clear idea of what precisely we are relating.

Discounting a certain romantic silliness—as evidenced in the cult of structures—it may fairly be said that the principle of service in respect of the first value is well understood. The danger is only that, lacking a clear and disciplined theory as to what precisely 'function' implies, we shall not be content with simple service (which constitutes an unquestionable value), but, with mistaken ideas that we are sociologists, overstep the bounds of value as specific and make, as a consequence, a doubtful contribution. But let that pass. With a little good sense, we have *this* problem in hand.

By contrast, with regard to the value that is formal, we are in even desperate need of a sane and balanced theory. For we have not even, seduced as we are by cults of 'the artist', learnt to frame the question correctly, to see the problem which does confront us. It has not to be asked, 'What constitutes good form?', since that as a question is properly unanswerable and in any case supposes an unreal objectivity; but rather 'What may constitute a satisfying (favourable) response?', with implicit suggestion that interest or answer is meaningful only as intersubjective. The satisfaction or value is that of men at large; and critical comment is idle that is not made in these terms.

It is not now the time to discuss this point at length or to show that method must be that of 'trial-and-error' ('suggestion-and-negation' in strictly logical terms). But it is the time to note a point upon which achievement depends. Though I am a professional, a working artist, a technician, primarily, and a theoretician only by force of circumstance, I am yet convinced that we shall never clarify ideas in this, our professional field, until we give thought to certain philosophical attitudes, which we must show to be fallacious before we can even begin. For, whether we have heard of the formal doctrines or not, their principles, to our confusion, provide us with our presuppositions. Thus, to demonstrate value as sensuous, as given on a preperceptual plane, it is necessary, against empiricism, or empiricism as all-embracing, to establish the existence of a world of infra-empiric action, a world in which neither the interest at stake nor the manner of discussing it are truly rational. That this may be done by inferential means, to the point at which we may mark a clear distinction between responses as sensory proper and responses as sensuous, rhythmic or compulsive, need not now concern us. It is enough that we understand that value on this plane is sensuous, sensuous strictly, even though that should mean no more than that it is adaptative.

This is all very superficial; nor could it be otherwise in statement so concise. None the less, much though I personally regret that it should be necessary to dig so deeply into an alien discipline, I am now persuaded that we shall never establish an adequate theory of architecture, of any other plastic art, or of relations between such arts, until we have clarified ideas on this issue. Historical analysis is an intellectual toy, in absence of which the architects of the past felt no discomfort or sense of loss. A basic philosophy of value, either implicit or explicit—and today, unfortunately, it must be the latter—is not a toy; it is a practical necessity. Or, precisely, it is a practical necessity in so far as we take the task of promoting value (in this case as sensuous) seriously, and as we suppose that, as served through our art, value is in some sense unique and specific—which, when we align architecture with painting or sculpture, it most certainly is not.

Without commenting on the peculiar

difficulties of threading a way through the present confusion, the outcome of too long a cultivation of the 'mental', I should like to make an incidental remark of such practical bearing as to illustrate my meaning. The idea that we can find a common denominator in 'a reconsideration of the geometric bases and limitations of architecture'—and mention of non-Euclidean geometry is here no more than gratuitous pretension, grounded in complete misunderstanding of the real nature of the problem—appears to me to be 'intellectual barbarism', notwithstanding that it has been indulged in by working artists aspiring to be 'intellectuals'. It is easily demonstrated (on Stratton, G. M., for instance) that responses do not have the rigid or static character that such an idea as this supposes, and that proportion is effectively 'weight or pressure of thrust, relative to other thrusts' and not some mathematical ratio. But this is only fully to be demonstrated as we can establish value (favourable response) as truly dynamic and sensuous, as 'impressive', and, as a consequence, intersubjective. For from this, and this alone, can pointed principle follow.

Doubtless Mr. Summerson speaks very 'elegantly'; but I cannot see that he has given more than an historical analysis of what he supposes to be the ideas of architects. He might then perhaps have observed that the deepest do not speak, any more than I would were it not sometimes necessary 'to correct a false relish'. Modern architecture has no theory of formal value, or at least no sound one everywhere accepted, and it suffers accordingly in respect of its achievement, as of its authority. It has no direction, it lacks essential aim, since it has not yet determined the value that it serves—far less, so far less, its character as specific.

I am, Sir,

Yours, etc.,

M. F. H. ROE [4]

Puerto Rico



LA R.I.B.A.

DEAR SIR,—Having seen the photograph in the August JOURNAL I thought the enclosed might explain those unaccountably long absences from most offices entailed in 'just going up to the R.I.B.A.'

Yours faithfully,

PETER D. WATSON [4]

THE ANNUAL DISCOURSE

DEAR SIR,—The letter from Kenneth Glover in the August issue of the JOURNAL displays an attitude to architecture which I hope is not representative of many others.

If he does not appreciate Professor Aalto's work and the recognition he has so well deserved, it is his loss and no one can help him.

To study the architecture, structures and the people of other countries is always of value and interest so long as one does not entirely rely on photographs.

Architecture is something serious and permanent and should not be confused with funny structures. Even if 'fun and games' have left Western architecture, the understanding and appreciation of other countries' architects and architecture have not left all of us, and I doubt if any architect would find Blenheim distasteful because he would be able to appreciate and understand, as would Professor Aalto.

Yours faithfully,

PHILIP TITHERLEY [4]

REORGANISATION OF CIAM

The following statement has been received from M. S. Giedion, Hon. Secretary of International Congresses for Modern Architecture:—

On 1 and 2 September 1957, CIAM met at La Sarraz, Switzerland, to fulfil the task set by the 10th CIAM Congress, Dubrovnik, 1956: to decide upon the form of a reorganised CIAM.

Reorganisation had become necessary on several counts. Since its foundation at La Sarraz in 1928, the main reason for the existence of CIAM has been to present problems of contemporary architecture and to point out emerging problems upon the horizon. These are tasks which cannot be undertaken by large associations. CIAM itself had become too large. It was necessary to restrict its membership exclusively to active participants. The decisions of La Sarraz, September 1957, were unanimously agreed by the Reorganisation Committee, Council and Delegates.

All former CIAM Groups are dissolved. CIAM is to be composed solely of individuals without reference to place or nationality. A Co-ordinating Committee, with J. Bakema (Rotterdam) as General Secretary, was appointed which will designate the new Participants of CIAM on the basis of recommendations from former Groups and others. All matters of organisation are in its hands until after a Working Congress of the Participants has met. The primary aim of CIAM now is to establish the inter-relation of the social structure and the contemporary means of expression. Its title has become:

CIAM: RESEARCH GROUP FOR SOCIAL AND VISUAL RELATIONSHIPS.

CIAM: GROUPE DE RECHERCHES POUR INTER-RELATIONS SOCIALES ET PLASTIQUES.

CIAM: ARBEITSGRUPPE FÜR DIE GESTALTUNG SOZIOLOGISCHER UND VISUELLER ZUSAMMENHÄNGE.

Book Reviews

The New Landscape in Art and Science, by Georgy Kepes. 11 in. 383 pp. incl. illus. Chicago: Paul Theobald. 1956. £5 16s.

One of the early effects of Newtonian Science in the 19th century was to dry up the springs of art by confusing the issue therefrom. Those who, with a knowledge of the classics and some faith in reason, had hold of a sufficient illusion concerning life were turned into ignoramus as a result of the dogmatic assertions of materialistic physics; and just as the nation at large was divided by industrialism into the haves and have nots, the exploiters and their wage slaves; so the world of culture was utterly disorganised by being cut off from its contact with nature by a nearly impregnable wall of scientific abstraction excluding every common sympathy.

So, in most particulars, we have continued, because even where we see the falsity of such a situation we are far from being released from the effects of a hundred years of environmental pressure in favour of the mechanical, predictable, efficient and vulgarly progressive.

Modern architecture, for all its service to industrialism, was a protest against this pragmatic view of things because its interpretation of function was essentially biological, but the necessarily rigid nature of its forms obscured what artists could, in the freedom of their media, reveal in the greatest variety of expression.

From the Impressionists onwards artists have responded to every stimulus provided by science, moving fearlessly into worlds of the unconscious opened up by Freud and his followers, returning to primitive conceptions of little more than biological sanction, or venturing without chart or compass into the 'supersensuous chaos' that was the last chapter of Henry Adam's education of 18th-century man projected beyond his time.

In *The New Landscape in Art and Science* Georgy Kepes offers us on the one side the new world of sight and touch and feeling opened up for us by the instruments of scientific observation; that is to say, what is seen through microscopes and telescopes, and what is brought to our notice at various stages removed by means of supersensitive photography and the like; and on the other the artist's reaction to them, saying to us, this is the material of art and architecture, this is a world opened up for your delight, in which you may roam at will, and from which you may bring back what is of value to your art and make in the process the so necessary re-connection between this world and the subjective essence of it residing in your own personality.

For what comes from this vivid survey of form and matter, alike from stroboscopic photographs of projectiles in flight, electron-micrographs of squid sperm or calcium carbonate, magnetic patterns in metal crystals, radiograph of an ant, strain diagrams of steel under load, high-speed

photographs of rain drops, or the surface of the moon hung over London itself by massive magnification, is no more than Blake's 'all infinity in a grain of sand', and the patterns and proportions arising from it are those from which artists, in whatsoever periods in which art has properly flourished, have always drawn.

Now the failure of the modern world to satisfy human emotions, its ugliness and malproportion, its patent inability to make anything worth looking at, still less to keep and treasure, comes from this addiction to a view of life founded on materialistic abstractions and from which the artist is excluded. It cannot be over-emphasised that this is the world we live in and must change if we are to survive.

What Kepes' book does is to describe this view of life by presenting us with examples drawn directly from scientific observation and in the greatest possible variety, alongside which the work of artists since time began are seen to extract from the seeming chaos of nature what will connect with man's moral nature as a social being and give form and elegance to his life.

And the evidence of the scientists serves to drive us back upon ourselves as being the first source and absolute touchstone of those forms and relationships with which, through architecture and planning, we shape a contemporary culture. Thus, when we assert that architects should replace engineers and surveyors as the creators of urban form, we do so as the representatives of a scientific outlook that has moved far beyond the mechanistic theories of the 19th-century 'practical man'.

E. MAXWELL FRY [F]

Technik in der Wohnung, by Erika and Ernst Brödner. 10½ in. 137 pp. incl. illus. Munich: Hermann Rinn. 1955. DM. 19.80.

This book is a combination of technical information and social survey. Its chief merit lies in the accumulated data and, although there are numerous sources available in this country for such information, it does not appear to have been presented in such a collective form before. Here is the sort of information one might get from the electricity or water authorities, such as: one electric unit (kW) is required for cooking one meal for a family of four, for a fortnight's vacuum cleaning or for five years' shaving; or a kind of 'Gallup poll' of the housewife's preferences in mechanical equipment (sewing machine and vacuum cleaner rank highest, while 'dishmasters' come very low in the scale of necessities).

Comparative annual cost is given for different heating methods, and it seems from this and many other facts that conditions in Western Germany do not differ substantially from those prevailing in Britain, and many observations would no doubt apply here; for instance, out of 19,000 building hours for a house, 1,200 are often wasted on 'chasing'!

There is a scientific evaluation of the different light sources (tungsten, cold cathode, etc.). There is a thorough analysis of all domestic activities, accompanied by

excellent plans of kitchens and entire small houses and flats.

Many items of equipment shown will rouse the envy of the English housewife and, even if they are not easily available in this country, it should be a good thing for the architect to be familiar with their existence. The aesthetic standard of the equipment shown is generally high. This applies equally to the German, American and English examples.

It is regrettable that the only British example shown involving craftsmanship on the site—the shelving in a linen cupboard in some well-known London flats—is rough and primitive, with its coarse ledges and clumsy woodwork, and compares very unfavourably with the neatly housed German example on the same page.

The book is, generally, a useful universal refresher course on all those matters which make the house truly a 'machine to live in', and a very comfortable one at that.

H. WERNER ROSENTHAL [A]

The Shingle Style, by Vincent J. Scully. 10½ in. (16) + 181 pp. + 56 pp. of illus. New Haven: Yale U.P.; London: O.U.P., 1955. £2 12s.

'The flexible and informal ground plan which was, on the whole, standard in America', said Sigfried Giedion in *Space, Time and Architecture*, 'grew up without any great name attached to it... it remained strictly anonymous.'

Mr. Vincent Scully has now removed the anonymity and attached many names, some great, some not-so-great, to this significant American contribution to modern architectural development, and his thorough and painstaking analysis of the progress of American domestic architecture in the last quarter of the 19th century has placed the research scholar and the serious student very much in his debt.

Mr. Scully establishes as fact that by 1880 the American house, although bearing some superficial resemblance to Norman Shaw's Queen Anne and its other English antecedents, had emerged as a distinct and original type due largely to the peculiar functional requirements, climatic conditions, and the materials available for building in the New World—and to the native ingenuity of certain architects. He demonstrates that the architect-designed house of the period, in so far as one can generalise in an age of militant individualism, was of open plan with shady verandahs and many dormers, built of lightly framed timber and clad almost invariably with weatherboarding or shingles.

The development of the open plan is of considerable interest and the author gives credit for initiating this major contribution to H. H. Richardson who in his important but unlovely Codman house (1869-71) provided a large central hall of a new kind, a hall no longer a place of passage, but a living space which dominated the plan and virtually opened up the ground floor of the house. Alfred Waterhouse's 'Hinderton' (1859) and Norman Shaw's 'Lowther Lodge' (1875), both of which are illustrated,

show the English preference for the cellular plan form with living rooms closed and isolated by doors from the hall which in Britain largely lost its importance as a centre of family life in medieval times. It may be noted, however, that there was a temporary revival of interest in the hall in the latter part of the century as, for example, in C. F. A. Voysey's 'Broadleys' (1898), and in many of the holiday houses and cottages by M. H. Baillie Scott this element is the largest living area: often it is two storeys high, and sometimes, especially in Baillie Scott's projects, it is designed with contiguous dining and sitting areas. This development, as Mr. Scully points out, may well be due to the influence of American designs published in British journals, though, in part at least, it is a natural consequence of the Gothic Revival.

And here I must make issue with Mr. Scully who occasionally permits his enthusiasm as an historian seeking sources and following threads (or should I say experiencing volumes?) to over-ride his good judgment. For example, I am repelled by the disorderly jumble of unrelated elements in, say, Peabody and Stearn's 'Kraggsyde' (illus. 61-3) built at Manchester-by-the-Sea, Mass. This house is described as the firm's 'one great masterpiece' with shingles '... like a thin membrane over echoing volumes' and a flexible framed structure which '... "balloons" with its caves and pavilions of space.' The implication here and elsewhere in the book would seem to be that the expression of structural technique and internal 'volume' if not an end in itself leads naturally to architecture of high quality. While one would not for a moment deny the possibility of this being so it can be nevertheless as illusory a theory as that of another American who coined the phrase 'form follows function.' The obvious retort is 'Of course it does'—but we as architects and critics, and, I venture to suggest, as historians, must distinguish between form and good form. Whatever the merits of the plan and volumetric subtleties of 'Kraggsyde' on the evidence of the illustrations alone it cannot possibly merit either the epithet 'great' (except in size) or the distinction 'masterpiece' bestowed on it by the author.

I have, perhaps, devoted too much attention to 'Kraggsyde' but it throws into sharp focus a weakness in an otherwise excellent study, namely the tendency of the author to lavish superlatives upon buildings which though interesting and even significant, often have little real architectural quality and possess few of the essential attributes required, say, by Owen Jones in his 3rd and 4th precepts (quoted by Mr. Scully on page 162).

Mr. Scully has made penetrating observations on the work of McKim, Mead and White and of Frank Lloyd Wright, but one had hoped for a more detailed study of the West Coast architects, Greene and Greene, and Maybeck, whose contribution has yet to be evaluated. But then, the author limited his research mainly to the period 1872-89, and Greene and Greene's 'Gamble House' in Pasadena is as remote from Yale

as is Voysey's 'The Orchard' at Chorley Wood. This is an excellent book that will amply repay careful study and we are greatly indebted to the author for bringing to our notice the work of many little-known figures, as well as reminding us of old friends.

THOMAS HOWARTH [F]

Roman Mornings, by James Lees-Milne. 8½ in. xviii + 148 pp. incl. illus. + 11 pls. Alan Wingate. 1956. 17s.

Mr. Lees-Milne deprecates the present-day tendency of art historians to regard buildings in purely academic terms. His book therefore is intended as a counterblast to the scholarly approach. He believes that associative and aesthetic values must not be ignored and, in this light, he describes eight buildings representing six epochs of the history of Rome. In his aims which are outlined in the preface, 'Mannerism' (and incidentally 'Neo-Classicism') is excluded; but surely the Palazzo Massimo alle Colonne, which is the subject of the second Renaissance chapter, is, if we believe Dr. Pevsner's definition, a key work of Mannerism?

The buildings have been chosen as 'archetypes' of their particular period. Even so, as the author admits, the choice is an arbitrary one: the Pantheon for its universal influence; Sta. Constanza, because it is the earliest Christian building to survive intact in the whole of Italy; Sta. Maria in Cosmedin because it has been less affected by Renaissance and Baroque alterations than any other medieval structure in Rome; Bramante's Tempietto because it is quite simply 'a work of art' and the obvious choice to represent the idea of High Renaissance classicism; the Palazzo Massimo alle Colonne for its esoteric appeal and because it is a domestic building; Sant'Andrea because it is the only church in Rome built by Bernini from the foundations; San Carlino as the first entire work of Borromini's architecture and because 'it anticipates the spirit of the 18th century'; and the Trevi fountain, apart from being an example of Rococo art, because it 'probably gives . . . more pleasure than all the preceding monuments.'

The result must be read as eight short essays having no connecting theme. In spite of this, the idea of writing about buildings combining the facts of the guide book, the style analysis of the art-historian and the anecdotal appeal of the travel book, is a good one, and would have been more enjoyable had not the personal opinions of the author been given such prominence. For example, the chapter devoted to San Carlino is made the vehicle for a diatribe against the late Fiske Kimball, whose penetrating researches into the origin of the Rococo are dismissed in a few paragraphs. The author puts forward the suggestion that the sources for the Rococo can be found in 17th-century Rome, and, in particular, the two chapels in San Carlo, and that the style was merely raised to heights of refinement in France. Having made the point that architecture must be judged by the requirements and standards

of its own time and having quoted earlier opinions to prove that the Baroque has been subject to fashion and prejudice, the author then turns to Anderson and Stratton in search of a definition of the Rococo.

This is the first time that Mr. Lees-Milne has written about architecture outside England, but his knowledge of, and pre-occupation with, the buildings of his own country are revealed in parallels with English art. It is a far cry from the dome of the Pantheon to Emanuel de Critz's ceilings at Wilton, and the reader, who would be more enlightened by a comparison of Bernini's position as architect-sculptor with that of his English contemporary Nicholas Stone, would need a more minute knowledge of English sculpture than the intelligent amateur usually possesses. Yet the book appears to be directed at those who have become 'acquainted with the architecture of their own country and wish to pursue the pleasures of studying buildings farther afield.'

Each chapter is accompanied with a plan, but unless the descriptions are to be read on the site, it will be necessary to find more photographs than are provided by the publisher.

P. H.

The Charm of Indo-Islamic Architecture, by John Terry. 10 in. 40 pp + 36 pp. of illus. Tiranti. 1955. 15s.

In an historical outline and 61 plates, each with its descriptive text, Mr. Terry deals with the architecture antecedent to, and of, the Mogul empire in India. Although limited by his terms of reference from showing any of the indigenous architecture, he emphasises the conflict of approach to building between the Hindu peoples and their Persian-Islamic conquerors.

Insufficient distinction, however, is drawn between the religion of Islam expressing itself in India directly in forms evolved in the near East, and the very much older Persian forms which have a common heritage with Greece. Even in such a brief survey it would have been interesting to learn more about the Sayyid and Lodi periods immediately preceding the imperial phase, with such features as the interlacing fretted vaults below the dome of the Purana Quila taken direct from Egypt.

It is difficult to follow Mr. Terry's argument for and against the employment of 'pietra dura' on the masterpieces of the Mogul period. Nevertheless, he makes it clear that here is a specifically Indian development independent of the Persian coloured tile technique, and for what it owes to Europe we must await publication in this country of the material referred to in the footnote to p. 21.

Among nostalgic memories aroused by the plates will be the controversy over the buildings by Lutyens and Baker of New Delhi in the Indo-Islamic style and of their neglect of Hindu forms.

It will be interesting to see future trends in Pakistan. In India, where 'patriotism' might take the form of repudiating tradition, one hopes the works of these giants in this style will be appreciated.

CECIL J. SEARLE [A]

London. i. The Cities of London and Westminster, by Nikolaus Pevsner. (The Buildings of England series, BE 12.) 7 in. 631 + 'notes' pp. + 96 pls. and pp. of illus. Harmondsworth: Penguin Books. 1957. (cloth) £1 1s.

Any volume in this now indispensable series is an event, and the long-awaited companion volume to the earlier *London except the Cities of London and Westminster* (1952) is an exciting one. Curiously, the new volume has been numbered 'One,' so the implied new edition of the older one will presumably become 'Two'; a corrected version of that compendious work will certainly be an advantage.

The new volume follows the topographical arrangement of the old; after a thorough introduction (16 per cent of the body of the work), the City of London (26 per cent) and the City of Westminster (45 per cent) share the book with the southern part of the Borough of Holborn (how many realised this was missing from the old? one wonders); the last is misleadingly comprehensive. Westminster Abbey alone occupies 15 per cent of the whole. But Dr. Pevsner has from this point felt compelled to abandon the 'Perambulations' previously so inviting, and, after the usual 'churches' and 'public buildings' categories, has arranged everything alphabetically by streets, in some cases by main streets adjoined (e.g. Piccadilly). One finds that an index to localities, as earlier, and to streets would still be a desirable addition.

The whole is a monument of persistent research and patient labour, but is written in a terser style and with less obvious humour—possibly under strain. It is usually up to date (e.g. the Exeter tomb, from St. Katharine's, Regent's Park, is now correctly consigned to the Tower), though a few old errors have inevitably been perpetuated and an attribution or two (such as that of the replanning of Parliament Square to G. Grey Wornum) have been missed out. More 'arts-and-crafts' examples have been found, such as the Black Friar Public House opposite Blackfriars Station.

The illustrations are adequate to the theme—some 160 photogravures in all—the five or more (unlisted) street plans are admirably precise and clear; there are two small plans of Westminster Abbey, one of church and one of monastic buildings.

Altogether the whole work of two volumes is an indispensable guide to London's buildings of all periods up to the present day. One is relieved to read on the wrapper that the series 'is intended to continue until all the counties of England are covered.'

H. V. M. R.

The Parish of St. Mary, Lambeth: Part II, Southern Area. (Survey of London, Vol. XXVI). London County Council. 12 in. xxiv + 226 pp. + 75 pls. Athlone Press, 1956. £2.

Five years ago the northern part of the Borough was dealt with by Miss Ida Darlington, the L.C.C. Archivist, in the first

volume of the Survey issued by the Council, after taking over the series from the London Survey Committee. It was an excellent piece of work and one regrets the swapping of editors in mid-stream.

Dr. F. H. W. Sheppard has followed the same general plan, one which has been evolved in fifty years of trial and error, and we have a detailed account of estate development and buildings; including those of more recent times than has been usual.

A 17-page 'General Introduction' is particularly helpful in unravelling the complexities of the growth of Brixton, Stockwell, Tulse Hill, Herne Hill and Norwood.

The overall impression given by the buildings is of a decaying Georgian tradition yielding to Victorian crudity. Many of those recorded are architecturally mediocre and much tedious repetition could have been avoided by the use of fully annotated strip elevations. The balance is partially restored, however, by several fine modern churches; St. John-the-Divine, by Street; Christ Church, by Beresford Pite; and Corpus Christi (R.C.), by Bentley; all in Brixton, and a great, though incomplete, effort, All Saints, West Dulwich, by Fellowes-Prynn.

The manorial history and the architectural descriptions are carefully and accurately given, but one feels that this is not enough and that more human and social background is needed. Could we not have been told something about Sir William McArthur, the last tenant of Raleigh Hall and what his relationship was to Capt. John McArthur, who introduced the merino sheep into Australia and has been commemorated by a special postage stamp; or of the firm of ivory importers who have been in existence more than 200 years and whose 19th-century letter-book reads like a Marryat novel; or of such an intriguing pocket as Peckford Place, which does not even appear in the Index?

Such small blemishes apart, the two volumes constitute a monumental and basic history of Lambeth.

W. W. BEGLEY [L]

The Making of Dutch Towns. A study in urban development from the 10th to the 17th centuries, by Gerald L. Burke. 10 in. 176 pp. incl. illus. Cleaver-Hume Press. 1956. 35s.

That there was no book on this subject published before in this country is surprising; the few pre-1914 volumes are solely concerned with the picturesque, with old Zuyder Zee ports and little Zealand towns, often the fruits of some sketching tour. Amsterdam has alone received a thorough study of its origins and growth.

From the first the Dutch have had to plan their towns in the face of extraordinary difficulties. It is this fact more than any other which makes a study of urban growth and development in the Netherlands so essential to the architect and planner. As no haphazard or laissez-faire habits were possible to the Dutch in their never-ending battle to hold on to the dry land which they already had, or to wrest a few more acres from sea, lake or bog, their towns took characteristic

forms at a very early date. In some cases very special conditions produced new and unique forms. A fair number of towns have survived almost wholly, or at least recognisably, as they were first planned.

Mr. Burke describes the conditions in which the towns were first laid out and later developed between the 10th and 17th centuries. The study is an interesting one and despite the general run of destruction and wrong-headed 'improvement' common to all European countries, one sees the Dutch as far more conscious of their urban legacy than we are here, and wiser and more gentle, although more conservative, in the treatment of their towns.

An extensive bibliography points to very thorough research and there is evidence of a wide knowledge of the Netherlands. But so much is crammed into a mere 172 pages that a great many of the important and absorbing facts read like an old-fashioned guidebook, whilst over-anxiety to illustrate most of his examples leads Mr. Burke (or his publishers) to choose that highly irritating device of many very small photographs on every page and a text which weaves in and out of them. Full pages are given to the reproductions of old prints, and these are some of the most interesting things in this book.

M. D. BEASLEY [L]

California Houses of Gordon Drake, by Douglas Baylis and Joan Parry. 9 in. 92 pp. incl. illus. New York: Reinhold Publishing Corp.; London: Chapman & Hall, 1957. £2 12s.

Gordon Drake died in 1952 at the age of 34. He was beyond question an architect of very great promise in the Bay Region manner of his adopted state of California—he was a Texan by birth. His particular talent lay in the design of small houses, as the illustrations in this attractively produced book show very clearly. Much of the text, unctuously sentimental, is better unread.

J. C. P.

Record Houses of 1956. Architectural Record. 11½ in. 314 pp. incl. illus. New York: Dodge Corp. 1956. \$2.95.

Of course, the 29 houses illustrated in this characteristically well-groomed collection are hardly typical of homes built in the United States in 1954 and 1955, but what other country could assemble anything comparable? All the same, many Britons may find the advertising pages more rewarding than other parts of the book. Take those kitchens, for instance. American manufacturers, it seems, do not place the handles of storage units so that they collide with housewives' (and husbands') knees.

J. C. P.

A Guide to the Architecture of Southern California. By Douglas Honnold, A.I.A. 8½ in. 96 pp. incl. illus. New York: Reinhold Publishing Corp. 1956.

This excellent little guide was principally intended for delegates to the 1956 Annual Convention of the American Institute of Architects held at Los Angeles. Reinhold kindly presented it.

Review of Films

The country of origin and date of release are given first. The film is in monochrome unless otherwise stated. The sizes (35 mm. and 16 mm.) are given. Sound films are marked 'sd.' and silent 'si.' The running time is given in minutes.

(F) indicates free distribution.

(H) indicates that a hiring fee is payable.

Single Stack Drainage

Britain 1955 (F)

Summary. Precautions to prevent foul air from entering buildings have hitherto required the use of a large amount of pipework in the drainage system. Research at the Building Research Station has shown how this pipework can safely be reduced by using a single stack for the disposal of the waste water and soil, and by eliminating vent pipes. Substantial savings can thereby be obtained.

Appraisal. A very well made and well constructed film on an interesting subject. The photography and commentary are both excellent and the points made are very clearly illustrated by reference to a full size transparent drainage system. Specially recommended for both architects and students.

16 sd., 15 min. From Ministry of Works, Lambeth Bridge House, London, S.E.1.

Factory Made Building Interiors

Britain 1955 (H)

Summary. Explains the advantages of prefabricated partitions, with special emphasis on the elimination of wet construction, and describes the manufacture and mounting of selected types.

Appraisal. A well made film giving a brief general survey of the manufacture and erection of prefabricated partitions. It would have been of greater value, however, if more practical information had been supplied, in particular comparative costs and the trade names of the types shown.

16 sd., 10 min. From Central Film Library, Government Building, Bromyard Avenue, Acton, W.3.

Joints in Civil Engineering and Building

Britain (F)

Summary. The film deals with the application of three types of jointing material; the first, a preformed cellular board for roads, culverts and general purposes, the second, a sealing compound to protect the jointing material on the water or weather face of a structure, the third a moulded rubber or extruded p.v.c. water bar for inseting in watertight joints.

Appraisal. The film appears to have been produced without any clear picture of the type of audience at which it is aimed, in consequence it is neither technically nor generally of very much interest. The makers of the film have also misunderstood the function of film as a medium for conveying information and the useful animated

diagrams in the earlier sequences soon give place to general pictorial shots which convey little of value. The standard of colour photography is good.

16 sd. colour, 30 min. From Expandite Limited, Chase Road, London, N.W.10.

Engineering in Wood

U.S.A. (F)

Summary. The film follows the sequence of operations from the felling of trees to their application as prefabricated wooden members in a large structure.

Appraisal. The film deals with only one limited application of timber to engineering and the title is, therefore, rather misleading. The sound track was out of phase with the film in the copy seen and the sequences had in consequence to be run too fast for full visual appreciation. Not recommended for specialised audiences.

16 sd., 21 min. From United States Information Service, American Embassy, London, W.1.

Designing a Concrete Mix

Britain 1955 (H)

Summary. Shows how laboratory testing of aggregates, sand and mix produces the concrete best suited for a given site and for the size of members employed.

16 sd., 10 min. From Central Film Library, Government Building, Bromyard Avenue, Acton, W.3. (Ref. No. U.K. 1388.)

Vibrated Concrete on a Building Site

Britain 1955 (H)

Summary. The use of vibrator techniques and such tools as the powered float results in economies in labour, materials and shuttering, and thus enables the architect to employ features which might otherwise be excluded on grounds of cost.

16 sd., 10 min. From Central Film Library, Government Building, Bromyard Avenue, Acton, W.3. (Ref. No. U.K. 1389.)

Soil Cement Roads

Britain 1955 (H)

Summary. The conventional use of hard core rubble as a basis for road laying is costly and may be unnecessary for minor roads and access roads on housing estates. The film shows how soil can be stabilised by mixing with cement and water and used as a basis for road laying.

16 sd., 10 min. From Central Film Library, Government Building, Bromyard Avenue, Acton, W.3. (Ref. No. U.K. 1387.)

Site Handling of Materials

Britain 1955 (H)

Summary. Tower cranes and other expensive items of equipment entail careful site planning if the capital cost is to be recovered. Jobs of all kinds benefit from planned site layout, the advance construction of access roads, proper protection of materials and their movement by powered tools. The film makes these and other points with the help of models of well and badly organised sites.

16 sd., 10 min. From Central Film Library, Government Building, Bromyard Avenue, Acton, W.3. (Ref. No. U.K. 1391.)

Appraisal. The above four films were made for the Ministry of Works under the Conditional Aid Programme. They are competently produced and photographed and effectively make their points with especial emphasis on the economies which can be achieved by the use of various techniques.

Models are effectively used in 'Site Handling of Materials'; the remainder would have benefited from an increased use of diagrams and from reference to relevant literature.

Ladders, Scaffolding and Floor Openings

U.S.A. (F)

Summary. The film is sponsored by an American insurance company and illustrates ways of avoiding accidents to operatives on building sites.

Appraisal. Not of any great value to audiences in this country as it does not accord with British practice. The methods and precautions shown are in any case treated rather sketchily.

16 sd., 9 min. From United States Information Service, American Embassy, London, W.1.

Changing Practices in Building

Britain 1955 (H)

Summary. The film reviews briefly some recent developments in methods and materials ranging from foundations to finishes.

Appraisal. An interesting, clear and straightforward résumé of the use of new building techniques and materials in this country. Both picture and sound are of excellent quality. Though somewhat slight, this is a useful film for general adult audiences and secondary schools; it is less suitable for specialist audiences and primary schools.

16 sd., 10 min. From Central Film Library, Government Building, Bromyard Avenue, Acton, W.3.

Concreting and Decorating

Britain 1955 (F)

Summary. A commercial film giving information on texturing and the prevention of cracking, crazing and dust on concrete surfaces. Suitable compositions for the application of colour and for resistance to water and various types of corrosion are also suggested. Reference is made throughout to actual examples.

Appraisal. The film reaches a high technical standard and makes its points well. Some of the examples of buildings and colours shown are unfortunately not equal to the high technical standard of the film.

16 sd. colour, 26 min. From Joseph Freeman, Sons and Co. Ltd., Cementone Works, Wandsworth, S.W.18.

Notes and Notices

NOTICES

Inaugural General Meeting, 5 November 1957 at 6 p.m. The Inaugural General Meeting of the Session 1957-58 will be held on Tuesday 5 November 1957 at 6 p.m. for the following purposes:—

To read the Minutes of the Ninth General Meeting of the Session 1956-57 held on 18 June 1957.

Mr. Kenneth M. B. Cross, M.A., President, to deliver his Inaugural Address.

To present the London Architecture Bronze Medal 1956 to Messrs. Chamberlin, Powell and Bon [A] for the Bousfield Primary School, South Bolton Gardens, S.W.10.

To present R.I.B.A. Awards for Distinction in Town Planning to Mr. D. E. E. Gibson, C.B.E., M.A., M.T.P.I. [F], Mr. H. J. Whitfield Lewis, M.T.P.I. [A], and Mr. Arthur G. Ling, B.A.(Arch.), M.T.P.I. [F].

(Light refreshments will be provided before the meeting.)

Classes of Retired Members. Under the provisions of Bye-law 15 applications may be received from those members who are eligible for transfer to the class of 'Retired Fellows', 'Retired Associates' or 'Retired Licentiates'.

The Bye-law is as follows: 'Any Fellow, Associate or Licentiate who has reached the age of 55 and has retired from practice may, subject to the approval of the Council, be transferred without election to the class of "Retired Fellows", "Retired Associates", or "Retired Licentiates", as the case may be, but in such case his interest in, or claim against the property of, the Royal Institute shall cease.

'The amount of the annual subscription payable by such "Retired Fellow", "Retired Associate", or "Retired Licentiate" shall be one guinea, or such amount as may be determined by resolution of the Council, excepting in the case of those who have paid subscriptions as full members for 30 years, and who shall be exempt from further payment. A "Retired Fellow", "Retired Associate", or "Retired Licentiate" shall have the right to use the affix of his class with the word "Retired" after it, shall be entitled to receive the JOURNAL and Kalendar, shall be entitled to the use of the Library, and shall have the right to attend General Meetings, but shall not be entitled to vote. A "Retired Fellow", "Retired Associate", or "Retired Licentiate" shall not engage in any avocation which in the opinion of the Council is inconsistent with that of architecture. Nothing contained in this Bye-law shall affect the rights of persons who at the date of the passing of this Bye-law are members of the classes of "Retired Fellows" and "Retired Members of the Society of Architects".'

Formal Admission of New Members at General Meetings. New members will be asked to notify the Secretary, R.I.B.A., beforehand of the date of the General Meeting at which they desire to be introduced and a printed postcard will be sent to each newly elected member for this purpose. On arrival at the R.I.B.A. on the evening of the General Meeting new members must notify the office of their presence and will then take their places in the seats specially numbered and reserved for their use. On being asked to present themselves for formal admission, the new members will file out in turn into the left-hand aisle and after shaking hands with the President (or Chairman) will return to their seats by way of the centre aisle.

Formal admission will take place at all remaining Ordinary General Meetings of the

present Session, with the exception of the following:—Inaugural General Meeting, 5 November 1957; Presentation of Prizes, 4 February 1958; Presentation of the Royal Gold Medal, 15 April 1958.

Correspondence with the Institute. In order to facilitate speedier attention to correspondence, and to relieve the staff of a great deal of research, it is particularly requested that members and Students will kindly state in all correspondence with the Institute the class of membership (*F, A, L or Student*) to which they belong.

New Building Materials and Preparations. The attention of members is drawn to the fact that information in the records of the Building Research Station, Garston, Watford, Herts, is freely available to any member of the architectural profession, and architects would be well advised, when considering the use of new materials and preparations of which they have had no previous experience, to apply to the Director for any information he can impart regarding their properties and application.

CURRENT R.I.B.A. PUBLICATIONS

The following is a list of the main R.I.B.A. publications with their prices.

Agreement, Forms of

Form of Agreement for General Use between a Private Building Owner and an Architect or a Firm of Architects.

Form of Agreement for General Use between a Building Owner (being a Statutory Authority) and an Architect or a Firm of Architects.

Form of Agreement between a Local Authority and a Firm of Architects for Housing Work.

Form of Agreement between a Local Authority and a Firm of Architects for Multi-Storey Flats.

Form of Agreement between the Promoters and a Firm of Architects appointed as the Result of a Competition.

Price 6d. per form (inclusive of purchase tax). Postage 4½d.

Architect and His Work, The

Price 6d. Postage 4½d.

Before You Build, Free

Certificates, Architects', Form Prepared by the Practice Committee

Copyright Book of 100 Certificates.

Price 17s. (inclusive of purchase tax). Postage 1s. 6d.

Conditions of Engagement and Scale of Professional Charges

Price 6d. Postage 3d.

Contract, Form of Agreement and Schedule of Conditions

For use with quantities: 1939 revised 1956. Copyright.

For use without quantities: 1939 revised 1956. Copyright.

Price 2s. 2d. per form (inclusive of purchase tax). Postage 6d.

Adapted for the use of Local Authorities, for use with quantities: 1939 revised 1956. Copyright.

Adapted for the use of Local Authorities, for use without quantities: 1939 revised 1956. Copyright.

Price 2s. 5½d. per form (inclusive of purchase tax). Postage 6d.

Fixed Fee Form of Prime Cost Contract for use in the repair of war-damaged property: 1946 revised 1956. Copyright.

Price 2s. 2d. (inclusive of purchase tax). Postage 6d.

Cost Plus Percentage Form of Prime Cost Contract for use in the repair of war-damaged property: 1946 revised 1956. Copyright.

Price 2s. 2d. (inclusive of purchase tax). Postage 6d.

Examination, Intermediate, Questions Set At

Price 1s. per examination. Postage 4½d.

Examination, Professional Practice, Questions Set At

Price 6d. per examination. Postage 3d.

Examinations, Final and Special Final, Questions Set At

Price 1s. per examination. Postage 4½d.

Forms of Articles of Pupilage

Copyright. Price 1s. 8d. (inclusive of purchase tax). Postage 3d.

Membership of the R.I.B.A.

Particulars of the Qualifications for Association.

Price 2s. 6d. Postage 6d.

Party Wall Notice Forms, for Use Under the London Building Act

Form A—Party Structures.

Form B—Party Fence Walls.

Form C—Intention to Build within Ten Feet and at a lower level than the bottom of the foundations of adjoining Owner's Building.

Form D—Intention to build within Twenty Feet of the adjoining Owner's Independent Building and to a depth as defined in Section 50(1)(b).

Form E—Party Walls and Party Fence Walls on line of Junction of adjoining lands.

Form F—Walls or Fence Walls on Building Owner's land with footings and foundations projecting into adjoining Owner's land.

Form G—Selection of Third Surveyor. Price 7d. per form (inclusive of purchase tax). Postage 3d.

Prizes and Studentships (Pamphlet)

Price 2s. 6d. Postage 6d.

Tender, Form of, for use by Nominated Suppliers

Price 2d. per form. Postage 3d. 2s. per dozen (post free).

COMPETITIONS

Development of the Leith Fort Housing Area. Last day for submitting designs: 30 November 1957.

Full particulars were published in the JOURNAL for June, page 342.

Civic Centre for the Borough of Enfield. Last day for submitting designs: 18 November 1957.

Full particulars were published in the JOURNAL for May, page 287.

International Competitions. A note has been received from the International Union of Architects that the conditions of the following competitions have been approved by them:

City Hall and Square for Toronto, Canada. The City of Toronto have announced a competition for a new City Hall and Square. The competition will be in two stages. At the end of the first stage, eight competitors will be selected to compete in the second stage, at the end of which each will be paid \$7,500. The winner will be the architect for the building and will receive \$25,000 in advance of fees which are set at 6 per cent of the cost of the building. The City of Toronto has not set a limit to cost, but estimates have been discussed up to \$18 million.

The Jury of Assessors, all of whom are architects, consists of the following:—

Professor Sir William Holford [F], London, Mr. C. E. Pratt, Vancouver, Signor Ernesto Rogers, Milan, Mr. Eero Saarinen, Michigan, Professor Gordon Stephenson [F], Toronto.

Professor Eric Arthur, F.R.A.I.C. [F], has been appointed professional adviser by the City and has drawn up the conditions of the competition. Copies may be obtained from him c/o City Hall, Toronto, Canada. Deposit \$5 or its equivalent.

It is hoped to publish further information when the conditions have been received by the Royal Institute.

Development of Berlin Centre. Last day for submitting designs: 1 February 1958.

Full particulars were published in the JOURNAL for May, page 287. The details given then stated that the competition was open to all architects and town planners living in Europe or born in Europe. We have been asked to say that this is not correct and that the competition is open to architects and town planners living in Europe or born in Germany.

Quaid-e-Azam Mohammed Ali Jinnah Mausoleum at Karachi. Closing date: 31 October 1957.

Full particulars were published in the JOURNAL for July, page 387.

ALLIED SOCIETIES

Changes of Officers and Addresses

East Africa Institute of Architects, Kenya Chapter. The address of the Chapter is now P.O. Box 9211, Nairobi, Kenya, East Africa. The Hon. Secretary of the Chapter is Mr. J. R. Watson [A].

Institute of Northern Rhodesian Architects. Hon. Secretary, B. W. Fothergill, B.E.M. [A], P.O. Box 1280, Ndola, Northern Rhodesia.

Royal Incorporation of Architects in Scotland. R.I.B.A. Architecture Bronze Medal. The R.I.B.A. will award a Bronze Medal for a building of outstanding merit in Scotland completed during the period from 1 January 1950 to 31 December 1956.

Architects other than members of the Royal Incorporation who have done work in Scotland during the above period who may wish to put their buildings forward for consideration should write for conditions to the Secretary, R.I.A.S., 15 Rutland Square, Edinburgh, 1.

GENERAL NOTES

R.I.B.A. Cricket Club

R.I.B.A. v. The R.I.C.S., 11 September 1957. The match was played at Cheam and unfortunately, owing to rain, had to be abandoned shortly after tea when the score stood at: R.I.C.S., 167 for four wickets declared, R.I.B.A., 50 for three wickets.

For the R.I.C.S., the top scorers were B. Lindsey, 43, F. Barns 42 and A. Drew, 33 not out. For the R.I.B.A., J. G. Batty took three wickets for 30.

Obituaries

John Raworth Hill [F] died on 17 March 1957, aged 57.

Mr. Hill received his training at London University and in the office of Mr. C. Cowles-Voysey [F]. He started private practice in London in the early 1930's and joined Mr. W. Denis Browne in partnership in 1954. Mr. Browne and Mr. P. P. Hubbard [A], who was taken into the partnership early this year, are continuing the practice.

The principal works with which Mr. Hill was concerned were the Odeon Cinema, Guildford, Benbow Wharf on the South Bank, a block of flats on Shoot-up-Hill, Cricklewood, and another at Beckenham, and a laundry at High Wycombe.

Charles Marriott [Hon. A] died on 13 July 1957, aged 88.

Mr. Marriott, novelist and art critic, was on the staff of THE TIMES for many years, following the death of Mr. Arthur Clutton-Brock, THE TIMES' art critic, in 1924. His services in the explanation of modern architecture were recognised by the R.I.B.A. and he was elected an Honorary Associate in 1927. In 1938-39 he was Sydney Jones Lecturer in Art at Liverpool University.

Mr. Eric L. Bird [A] writes:

'The architectural profession owes a great deal to Charles Marriott. He became architectural correspondent of THE TIMES when the services of the architect were still regarded by the public as a luxury for wealthy organisations and individuals. He saw clearly that in future those services were to be given more and more to the community as a whole. His articles in the most influential of newspapers did much to foster that change of view in the public mind.

'At that time—the early 'twenties—the only arts considered worthy of the higher criticism were the drama, music, painting and literature. Charles Marriott quietly staked a claim for architecture and worked on it assiduously though, essentially modest, he refused to be regarded as a critic. In this, perhaps, he revealed his wisdom. Though his comments were penetrating, he was remarkably free from personal prejudices—a prevalent occupational disease of critics—and did not wish to be accused of them.

'He maintained a sensible detachment from the more hot-blooded architectural controversies, which often bewildered laymen, judging buildings dispassionately as suitable or unsuitable for their purpose, situation and epoch. The much-banded terms "modern" and "traditional" had little meaning for him. He looked at buildings from the viewpoint of the intelligent, informed client. I feel that today he would have judged the latest curtain-walled building strictly on its merits as a design, fully understanding the economic forces behind it. Quick to spot design clichés of any kind, whether imitative of the tricks of Corb and F.L.W. or mere copybook essays in "Banker's Classic", he was equally quick to notice and to give credit for original thought which contributed to progress in architecture.

'Before the last war I was in charge of the Royal Institute's public relations, then no more than a part-time affair, and therefore saw much of Charles Marriott at press views of exhibitions and other occasions of importance at Portland Place. He never failed to attend and, next day, there would appear in THE TIMES a sane and balanced appreciation of the event. To go round an exhibition of architecture

with him and listen to his candid, pertinent but kindly comments was a chance I took care not to miss. He would recoil gently before a clever pastiche or an example of self-assertive dramatics, his eye and finger directing my attention to some unassuming, scholarly and competent design whose merits until then I had barely noticed. Yet, though never posing as an authority, his judgments carried the conviction of truth.

'Courteous, even-tempered and wise, he remains for me an especially happy memory.'

Ernest Marston Powers [Retd. F] died early this year at the age of 79.

Mr. Powers was educated at King Edward VI School, Birmingham, and was articled to a Birmingham architect. Urged by a desire to see more of the world he joined William Black [F] in Cape Town in 1903, returning to England in 1906, then spending three years in Australia, before finally settling in South Africa in 1910, when he joined the staff of the P.W.D. in Pretoria. After winning an architectural competition for the new headquarters of the Fire Brigade Station in Pretoria, Mr. Powers entered into partnership with Mr. N. T. Cowin, a quantity surveyor.

The firm of Cowin and Powers continued practising in Pretoria and Johannesburg for some years, winning many competitions for civic buildings in the Transvaal and Cape Province, including the Memorial Hospital for Children, Johannesburg, and, in association with Mr. Frank Emley [F], several faculty buildings for the new University of Witwatersrand. Mr. Powers also won the competition for the new non-European hospital at Congella, which became Edward VIII Hospital. Mr. Gordon Ellis [A] joined the partnership in 1922, a Durban office was opened by Mr. Powers three years later and in 1934 Mr. Powers' two sons were taken into partnership. Since then the firm has carried out many large commercial, ecclesiastical and scholastic buildings, including hostels and faculty buildings for the University of Natal in Durban and Pietermaritzburg.

Mr. Powers was past President of the old Transvaal Institute of Architects and of the Natal Provincial Institute of Architects and past President-in-Chief of the Institute of South African Architects. He took a very keen interest in the education and welfare of architectural students and before recognised schools were formed had assisted in lecturing. As Chairman of the Inaugural Committee of the South African Institute of Architects, he was one of the pioneers whose work culminated in the passing of the Institute's Registration Act in 1927. From 1923 to 1932 he was Hon. Secretary R.I.B.A. for South Africa.

Gordon Sutcliffe [A] died on 8 January 1957, aged 54.

After receiving his training with the firm of Bradshaw, Gass and Hope of Bolton, Lancs, Mr. Sutcliffe joined Mr. Alan Stewart [L] in Bournemouth, as his assistant, becoming his partner in 1936.

He had recently been dealing with work on the church schools in Bournemouth and other parts of Hampshire. His principal works include the Assembly Hall for the Convent of the Cross and the Presbytery for the Catholic Church, both at Bournemouth.

Mr. Sutcliffe was a past President of the Hampshire and Isle of Wight Architectural Association and had represented that body on the R.I.B.A. Council and the Allied Societies' Conference, and also a past Chairman of the

Western Chapter of the Hampshire and Isle of Wight Architectural Association.

Colonel Frederick Charles Temple [Reid. L.] died on 26 March 1957, aged 77.

Colonel Temple was a son of Frederick Temple, Archbishop of Canterbury from 1897-1902, and a brother of Dr. William Temple, who held the same office. He was educated at Rugby and Balliol College, Oxford, and served his apprenticeship under Mr. James Mansergh, F.R.S., from 1901 until he was appointed Engineer of the Birmingham Elan Valley Waterworks in 1903. Two years later he accepted an appointment with the Military Works Service in India and embarked on a long and distinguished career in that country as an engineer, in the Army, and later in a civil capacity.

He held various appointments in the Indian P.W.D. until he became Chief Town Engineer, Jamshedpur, in 1919 and from 1924-32 Administrator, a post involving responsibility for the town planning there, including the design of the waterworks. From 1934-35 he was also Relief Engineer and Supply Officer for the Government of Bihar and Orissa.

Colonel Temple also served in the Indian Auxiliary Forces from 1908-36, and was Commanding Officer of the Chota Nagpur Regiment and from 1931-36 Hon. A.D.C. to the Viceroy.

He returned to London in 1935, where he entered into partnership with Mr. George Bransby-Williams. During the early years of the Second World War he commanded a Home Defence Battalion. He left the Army in 1941 to serve in the Ministry of Home Security and in 1942 became Regional Controller, under the Ministry of Fuel and Power, for Northumberland and Cumberland, and in 1947 was appointed Director of Opencast Coal Production for the whole country.

Colonel Temple had been awarded the Volunteer (Officers') Decoration and was made C.I.E. in 1931 and C.B.E. in 1949. He was a member of the Institution of Civil Engineers, the Institution of Mechanical Engineers and the Town Planning Institute, and since 1954 Town Councillor for Lewes, Sussex. From 1932-34 he had been District Grand Secretary of the District Grand Lodge of Bengal; and he was also the author of several books on engineering, including *Small Sewage Works*.

Members' Column

This column is reserved for notices of changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr. W. Dickson, M.C.D. [A], has taken up the position of Senior Planner in charge of Urban Renewal in the City of Portland, Maine, U.S.A.

Mr. Peter John Webb [A] has taken up a position with Mr. Henry Flies of Toronto, and his address is now Apt. 1105 Falcon Tower, 111 Lawton Boulevard, Toronto 7, Ontario, Canada.

PRACTICES AND PARTNERSHIPS

The practices of **Mr. Eric S. Benson**, M.B.E. [F], of 14 St. Peter's Square, Manchester, 2, and **Mr. R. B. Turner**, A.M.T.P.I. [A], of 180 Oxford Road, Manchester, 13, have been amalgamated under the style of **Turner and Benson**. For the time being both the above

addresses will be used but all correspondence should be addressed to 180 Oxford Road.

Miss R. B. Evans [A] has retired from practice with **Mr. H. M. R. Burgess** [A] and **Mr. H. W. David Burgess** [A] in the firm of **David Burgess and Rae Evans**. **Mr. D. E. Wyn Thomas**, A.M.T.P.I. [A] has joined them and the practice will be continued at 51 The Parade, Cardiff, and 30 Mill Street, Pontypridd, under the new style of **H. M. R. Burgess and Partners**.

Mr. Michael Foley [A] has commenced practice at 7 Temple Square, Aylesbury, Bucks., where he will be pleased to receive trade literature.

Mrs. E. D. Hughes, M.B.E. [F] and **Mr. R. W. J. Polkinghorne** [A], of the firm of **Hughes and Polkinghorne**, have taken **Mr. Thomas N. Watson**, Dip.Arch. (Abdn.) [A] into partnership. They have opened a branch under the same style at P.O. Box 3044, Kampala, Uganda, with **Mr. Watson** as resident partner, where he will be pleased to receive trade catalogues, etc.

Mr. V. A. St. Aubyn Hubbard [A] has begun practice at Flint House, 44 South Street, Chichester, Sussex, where he will be pleased to receive trade literature, etc.

CHANGES OF ADDRESS

Mr. Brian Annable [A] has changed his address to 8 Wansfell Close, Canley, Coventry, Warwicks.

Mr. Eric G. Bamsey [A] has changed his address to St. Cloud, Callow End, Worcester.

Mr. H. M. Barker [L] has changed his address to 46 and 47 The Strand, Walmer, Kent.

Mr. George Holland [A] has taken up an appointment in Australia and his address from 1 November will be c/o Director of Works, Department of Works, Canberra, A.C.T., Australia, where he will be pleased to receive trade literature.

Mr. R. J. Ivens [A] has changed his address to c/o Messrs. Mence and Moore, Temple Building, 33 Abercromby Street, Port of Spain, Trinidad, B.W.I.

Mr. Robert B. Jackson [A] has changed his address to 10 Rosslyn Mansions, Goldhurst Terrace, Hampstead, London, N.W.6.

Messrs. S. P. Jordan and Partners [AA] have moved their office to 1 Bloomsbury Court, London, W.C.1 (CHAncery 7266-7).

Mr. C. A. L. Levick, A.M.T.P.I. [A] has changed his address to 23 Lynford Place, Durban North, Natal, South Africa.

Mr. William C. Lock [F] is now practising from Trefoil Cottage, Letty Green, Hertford, Herts. (Essendon 327).

During his stay in Pakistan, the temporary address of **Mr. Peter W. G. Powell**, A.M.T.P.I. [A] will be c/o Hotel Shahbagh, Dacca, East Pakistan.

Mr. Douglas H. Ross, [A] has changed his private address to 'Cluney', 7 Stanhope Road, Croydon, Surrey.

Messrs. W. H. Saunders and Son (J. H. Saunders) [L] and **R. W. Leggatt**, A.M.T.P.I. [A], have transferred their London office to 45 Chancery Lane, London, W.C.2 (HOLborn 1500), where they will be working in association with **Mr. David A. Wilkie** [F]. **Mr. J. Scaife** [A] will continue to be Chief Assistant to the London office at its new address.

Messrs. Scherrer and Hicks [FF] of 27 Harcourt House, 19 Cavendish Square, London, W.1, have opened an office at 27 King Street, Manchester (Deansgate 7303), under the charge

of **Mr. B. J. Moxham** [A] their senior assistant for a number of years. Trade catalogues would be welcomed.

Messrs. Shepperdson and Dixon [L/A] of 2 Museum Street, Ipswich, have opened a branch office at 15A High Street, Colchester (Colchester 5904) and will be pleased to receive trade catalogues, etc.

Mr. J. Douglas Smith [A] has changed his address to Apartment 803, 220 Eglinton Avenue East, Toronto 12, Ontario, Canada.

Mr. J. S. Thompson [A] practising under the style of **C. E. Hanscomb and Partners** and also **W. L. Eves and Partners** at 6 South Street, Epsom, Surrey, and 54 High Street, Uxbridge, Middlesex, and 32 The Mall, Ealing, W.5, has now closed the Ealing office. All communications should now be addressed to the Epsom office.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Associate, young, with small practice in central Kent, wishes to meet another young architect in practice in either London or central Kent with a view to joint practice together. Box 79, c/o Secretary, R.I.B.A.

Fellow with practice in North Wales county town wishes to get in touch with a young qualified architect with a view to partnership. Good prospects for energetic young man. Box 80, c/o Secretary, R.I.B.A.

Appointment leading to partnership in 9 to 12 months is offered in an East Anglian practice. Applicants with some contacts of their own an advantage. Write, stating age and experience, etc., to Box 81, c/o Secretary, R.I.B.A.

Fellow, with wide experience at home and abroad, and with some connections, prepared to work his way to partnership in a suitable firm where prospects exist, preferably in or near London; or capital and own office available for immediate working partnership. Box 82, c/o Secretary, R.I.B.A.

The Royal Institute of British Architects, as a body, is not responsible for statements made or opinions expressed in the JOURNAL.



HEALTH AND INCOME

Group Continuous Disability Insurance offers substantial advantages, with premium rates well below those required for individual policies.

It is open to male lives—Architects and those associated with them—and provides an income during disablement caused by accident or by sickness, an income which continues so long as the member is unable to work, up to the selected ceasing age—usually 65. A member of the scheme complying with the usual conditions regarding payment of premium, etc., will continue to be covered without restriction of benefits or increase in premium no matter how frequent or extended the periods of disablement may become. Address inquiries to:—

The Manager,
A.B.S. Insurance Agency, Ltd.,
78 Wimpole Street,
London, W.1.
(Telephone: WELbeck 1526)

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